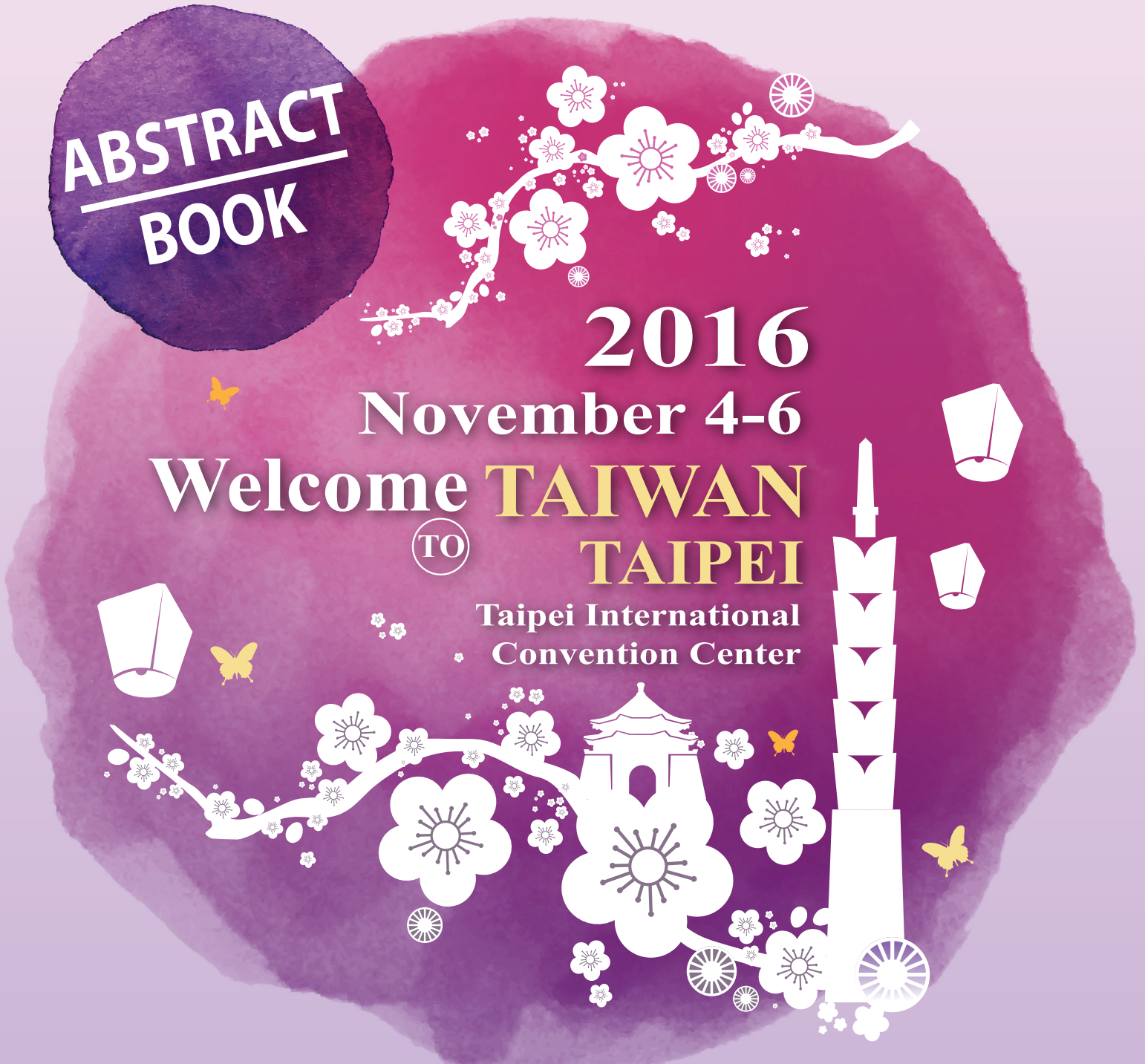
2016
APAGE & TAMIG ANNUAL CONGRESS

November 4-6, 2016



APAGE 2016

APAGE & TAMIG

ANNUAL CONGRESS

ABSTRACT BOOK

November 4-6, 2016

TAIPEI, TAIWAN

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Keynote Lectures

INVITED SPEECH

THE GROSS OF SURGEON

JINGHE LANG
Chinese Gynecological Endoscopic Group, China

INVITED SPEECH

SHOULD WE BE CONCERNED ABOUT SURGICAL SMOKE IN THE OPERATING ROOM?

GUAGN-PERNG YEH
Taiwan Association for Minimally Invasive Gynecology, Taiwan

ABSTRACT:

Laser, ultrasonic devices or electrosurgical units are used in almost all modern operating rooms. These surgical instruments that cause thermal destruction of tissue will produce surgical smoke. What are the contents of surgical smoke? Does surgical smoke influence air quality in operating theaters? Will patients and surgical team members including surgeons, perioperative nurses, surgical technologists, anesthetic nurses and anesthetists be harmed by long-term exposure to surgical smoke? Are there recommendations or guidelines around the world for defenses against surgical smoke? The air quality in operating theaters has been a concern for over four decades, are there new developments in recent years? This speech will try to answer the above-metioned questions and give possible suggestions for implementing control measures to minimize potential health hazards to all operating room personnel.

INVITED SPEECH

THE HISTORY AND INTRODUCTION OF HYSTEROSCOPIC MORCELLATION; EVOLUTION OR REVOLUTION?

MARK H. EMANUEL
University Medical Center, Utrecht, The Netherlands

ABSTRACT:

OBJECTIVES: Describe the advantages and disadvantages of hysteroscopic morcellation in relation to standard electrosurgical resection Recognize pathology that can be treated in with hysteroscopic morcellation

Be able to choose the optimal technique for OR and office based hysteroscopic procedures Make a procedure based decision in acquiring hysteroscopic morcellation instrumentation.

Hysteroscopic morcellation may be used for resection of submucosal fibroids, as well as, endometrial polyps and retained products of conception. The Hysteroscopic Morcellator (Prototype and original version: TRUCLEAR by Smith & Nephew, Andover, Mass, USA, recently Medtronic Minneapolis, MN, USA) provides a nonelectrosurgical removal option. The morcellator consists of an inner rotating or reciprocating tube electronically controlled by a foot pedal and an outer tube. Only a single insertion through a rigid hysteroscope is required, followed by saline inflation of the uterus. After the fibroid or polyp is visualized, the morcellator is placed against the lesion and rotation (optimal for polyp morcellation) or reciprocation (optimal for myomas) of the inner tube cuts the lesion as controlled suction is used for continuous tissue removal and outflow. Each tube has an opening at the end of it for visualization of cutting.

Advantages of morcellation include the use of physiologic saline for distention and irrigation and the availability of tissue fragments for histologic analysis after morcellation. Mean operating time has been demonstrated to be shorter when compared to resectoscopy in both a retrospective comparison and a randomized controlled study among residents in training. The latter study demonstrated a significantly reduced operating time of more than 8 minutes in comparison to conventional resectoscopy when using the Morcellator for polyps as well as type 0 and type 1 submucosal myomas (<30 mm in diameter) (17 min vs 31 min).

The new technique of hysteroscopic morcellation for the removal of endometrial polyps and submucous myomas may offer a safe and effective alternative to conventional resectoscopy with a shorter learning curve as it seems easier to perform Furthermore, this technique can be expected to result in fewer technique-related complications.

A recent randomised controlled trial at the University of Birmingham (UK) comparing hysteroscopic morcellation with electrical resection of endometrial polyps in office setting clearly demonstrated that morcellation is quicker, more successful, less painful and more acceptable to women.

BIOGRAPHY:

Mark Hans Emanuel MD PhD was trained at the Academic Medical Center of the University of Amsterdam. Since 1992 he is working in the Spaarne Hospital (University of Amsterdam) in Haarlem/Heemstede/Hoofddorp as a staff consultant gynaecologist and since this year he works in the University Medical Center in Utrecht.

In 1998 he wrote his PhD-thesis entitled: Submucous Myomas and Abnormal Uterine Bleeding; epidemiology, diagnosis and treatment. His special field of interest is diagnosis and treatment of the uterine cavity (ultrasonography and hysteroscopy). He is a specialist in advanced hysteroscopic surgery and he is directing a National Referral Center for advanced hysteroscopic surgery and Asherman Syndrome. He is a former Board Member of the Dutch Society of Obstetrics & Gynaecologuy (NVOG) and ISGE.

He was awarded as Dutch Inventor of the Year for the

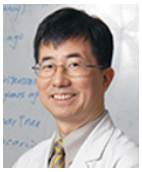
development of Hysteroscopic Morcellation or Tissue Removal Sysytems.

He holds three patents related to Hysteroscopic Morcellation, Gel instillation Sonohysterography and Hysterosalpingo Foam Sonography respectively.
He lives in the center of The Netherlands with his wife Lilian Walhof and he has three daughters who live in Amsterdam.

INVITED SPEECH

IS NATURAL ORIFICE TRANSVAGINAL ENDOSCOPY SURGERY (NOTES) IN GYNECOLOGY FEASIBLE?

CHYI-LONG LEE
The Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy, Taiwan



ABSTRACT:

Minimally invasive surgery is well known by its advantages of less postoperative pain, shorter hospital stay, and faster recovery. However, trocar wound is still associated with some minor complications, such as hematoma, infection, hernia, trocar site metastatses, and hypertrophic scar or keloid formation. Therefore, the new technique of minimally invasive surgery, single-port laparoscopy was developed recently with the aim to decrease the number of trocar insertions so wound complications can be diminished and cosmetic outcomes improved.

Natural orifice transluminal endoscopic surgery (NOTES) is a newly developed method of minimally invasive surgery. NOTES uses the natural orifices of the body surface, such as the mouth, the anus, and the vagina, as the surgical channel of endoscopy to avoid incision scars on the abdominal wall, prevent complications of trocar wound, and achieve better cosmetic outcomes. NOTES has been applied in general surgery, including cholecystectomy, gastrojejunostomy, and splenectomy, and its safety and feasibility are also proved. Among the routes of NOTES, the transvaginal approach is most frequently used and it is similar to the previous concept of culdoscopy or ventroscopy in gynecology, which was first reported in 1901 for visualization of the intraabdominal organs. A few papers discussing the use of culdoscopy in diagnostic and therapeutic purposes are available in the literature. However, culdoscopy has been criticized for increased risk of infection and restricted surgical fields; its application diminished after the rising popularity of laparoscopy since 1970. Because of increased experiences from single-port laparoscopy and progressing both laparoscopic instrumentation and electrocoagulation, we can establish a surgical channel at the vagina to evolve the previous concept of culdoscopy into transvaginal NOTES to broaden clinical application from diagnostic purposes or simple surgery to complex procedures.

We performed NOTES surgery since 2010 and broaden the clinical applications from adnexal surgery, hysterectomy, and myomectomy to endometrial cancer surgery. However, there are some limitations still should be discussed.

INVITED SPEECH

SURGICAL TECHNIQUE AT LIVE DONOR HUMAN UTERUS TRANSPLANTATION

MATS BRÄNNSTRÖM
Department of Obstetrics & Gynecology, Sahlgrenska Academy, University of Gothenburg, Sweden

ABSTRACT:

The last frontier to conquer in female infertility has been absolute uterine factor infertility (AUFI), affecting 1:500 women. The cause of AUFI may be uterine aplasia, hysterectomy at young age (cervical/uterine malignancy, emergency postpartum hysterectomy), Asherman's syndrome or major uterine malformation. After more than a decade of animal-based research in uterus transplantation (UTx), involving rodents, domestic species and nonhuman primates we launched the first clinical trial in UTx in 2013. An extensive part of our animal UTx-research had been on the live donor concept of UTx. Consequently, our trial was on human live donor UTx, with a close relative or family friend being the donor. Prior to our trial one live donor UTx attempt had been performed. In that initial attempt (year 2000), performed in Saudi Arabia, a 46-year old non-relative donated her uterus in conjunction with adnexal surgery for a benign ovarian cyst. The recipient was a 26-year old patient that had lost the uterus at peri-partum hysterectomy some years later. The case was not prepared by any research in animals. The uterus was removed after 3 months due to progressive necrosis and vascular thrombosis was seen.

In early 2013 our team completed the surgeries of a series of totally 9 human live donor UTx. Donor surgery involved surgical isolation of the uterus with as long vascular pedicles that would allow for end-to-side anastomosis to the external iliacs of the recipient. Based on animal training in sheep and baboon we estimated that donor surgery in the human setting would take 5-6 h and recipient surgery 4-5 h.

The donor surgery was performed through a midline incision, extending 2-3 cm above the umbilicus. Round ligaments were divided close to the inguinal ligament and the retroperitoneal spaces on the pelvic sidewalls were gently opened. A large bladder peritoneum flap was gently dissected for later used in the recipient for uterine fixation. The ovaries were detached from the uterus but with the oviducts still attached. The oviducts were then used for upward uterine traction, to aid in the dissection around the lower parts of the uterus and the cervix. Ureteric dissections were then from the iliac bifurcation and all the way to the bladder. Special care was taken to detach the over-riding uterine arteries and the larger uterine veins (usually one over the ureter; one or two under the ureter) from the ureter and the cervix. This would involve suturing of several venous branches that go between the major uterine veins. Uterine artery and one or two major uterine veins on each side were then dissected to include segments/flaps of the internal iliac vein and concerning the internal iliac artery, the length up the branching of the gluteal artery. Several arterial and venous branches, as well as the obliterated umbilical artery, were ligated/sutured to accomplish long vascular pedicles. The vagina was then divided with a 2 cm long segment on the uterine side. The oviducts were removed. A heparin bolus was given before the arteries and veins were clamped at the proximal dissection sites of the internal iliacs.

The clamping sites on the vessels and the vagina were sutured with continuous sutures, before closing the abdomen. The surgical duration of the donor was surprisingly long (10.5-13h). Donors did not need perioperative blood transfusion and had a postoperative hospital stay of 6 days.

The uterine specimen had immediately been brought from the pelvis of the donor to the back-table for flushing with cold Custodiol preservation solution and was further chilled on ice slush. Any necessary reconstructions of blood vessels were performed on the back-table.

Prior to final removal of the uterus from the donor, the surgery of the recipient (with no uterus) had started. Surgery was through a midline incision and the preparations before the organ was inserted were separation of the vaginal vault from the bladder and the rectum, as well as dissection of the external iliac vessels in preparation for vascular anastomosis. Fixation sutures (nonresorbable) were placed bilaterally at sacrouterine ligaments, cardinal ligaments (bisected uterine rudiment) and round ligaments. The organ was then brought into the pelvis and the vessels were anastomosed end-to-side to the external iliacs with 7-0 polypropylene sutures. A heparin bolus was given prior to that vascular clamps were removed and the organ was perfused after 1-1.5h of warm ischemia. The vaginal-vaginal anastomosis was sutured by acontinuous 2-0 resorbable suture. The organ was then fixed with the fixation sutures of the sacrouterine ligaments, round ligaments and cardinal ligaments. Further fixation was by suturing the large flap of the bladder peritoneum on top of the urinary bladder of the recipient. The abdomen was closed. Surgical duration was around 4 h in all cases and hospital stay was between 4 and 9 days.

In the lecture detailed description of all surgical steps, including surgical videos, will be given.

INVITED SPEECH

HUMAN UTERUS TRANSPLANTATION WITH LIVE BIRTHS AND THE FUTURE

MATS BRÄNNSTRÖM
Department of Obstetrics & Gynecology, Sahlgrenska Academy, University of Gothenburg, Sweden

ABSTRACT:

In early 2013 our team completed the surgeries of a series of totally 9 human UTx, with live uterus donors. Extensive medical and psychological screening of donors, recipients and partners had been done prior to meet the strict inclusion criteria. All patients had gone through 2-3 IVF cycles prior to that in order to cryopreserve embryos for use after UTx. Seven patients had only cleavage state embryos cryopreserved and 2 patients had cryopreserved blastocysts. Five of the donors were mothers and in the other cases they were aunt on mother´s side, sister, mother-in-law and close family friend. Notably is that five of the donors were postmenopausal at the time of surgery, and these donors had been prescribed cyclic HRT for some months before surgery. After UTx, seven patients experienced regular menses from 2 months after UTx. Two out of the nine patients lost the graft during the initial months after UTx. One patient acquired an intrauterine infection around 6 weeks after UTx. Despite several attempts of heavy iv antibiotic treatment and surgical drainage, an intrauterine abscess developed with initial septicaemia. The uterus was removed 3.5 months postoperatively. Another patient, heterozygote for the Leiden mutation, developed bilateral uterine artery and vein thrombosis within the first days after transplantation, and the uterus was removed on the 3rd postoperative day. Notably, these two graft failures occurred in two out of the three grafts from donors that were above 60 years of age at donation. During the first postoperative year mild and subclinical rejection episodes occurred in 5 of the seven patients. Uterine blood flow remained normal. Seven patients experienced regular menses from 2 months after UTx and embryo transfers were initiated 12-16 months after transplantation. So far 5 out of the 7 patients have delivered healthy babies and there is one more ongoing pregnancy. The babies had normal weight for gestational age at birth and have developed normal, with the first boy now two-year old. A sixth recipient has been pregnant two times but with miscarriages at week 14 and 8. This gives a total clinical pregnancy rate of 86% in this cohort of 7 UTx patients. The cohort of donors, recipients and babies will be followed for many years. New clinical trials with robotically-assisted laparoscopy at organ procurement and in one live-donor UTx study and one study with deceased donor UTx are planned in Sweden in 2017. An international registry of all UTx procedures and outcomes will be formed within the newly formed International Society of Uterus Transplantation (ISUTx) and a first international meeting is held in Gothenburg, September 2017 (www.isutx.org). Research is ongoing in the field of uterus bioengineering.

INVITED SPEECH

RECENT ADVANCES IN LOWER LIMB LYMPHEDEMA

MING-HUEI CHENG
Linkou Chang Gung Memorial Hospital, Taiwan

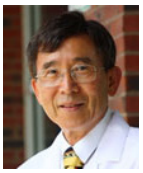
ABSTRACT:

Vascularized lymph node flap transfer may drain the lymph from interstitial tissue to the transferred lymph nodes and then to donor vein followed by recipient vein in the lymphedematous limb. The mechanism of vascularized lymph node flap for lymph drainage includes pump effect, catch effect and gravity effect. Vascularized groin lymph node flap has been successfully transferred to wrist for upper limb lymphedema. This study investigated the new vascularized submental lymph node (VSLN) flap transfer for treatment of lower limb lymphedema, special bilateral. There are several donor sites of vascularized lymph node flap available for transfer; such as groin, axilla, submental, supraclavicular, and omentun. The ultrasound Duplex can be preoperatively used to evaluate the number of lymph nodes in each basin, pedicle diameter and length, and the thickness of flap. The vascularized groin lymph node flap transfer to the ankle with significant improvement of lower limb lymphedema.

Vascularized lymph node flap transfer is an effective surgical technique for lower limbs lymphedema.

INVITED SPEECH

PRINCIPLES OF LAPAROSCOPIC VAGINAL APICAL SUSPENSION



C.Y. LIU
American Association of Gynecologic Laparoscopists, USA

Biography:

C.Y. Liu, an internationally recognized leader and pioneer in gynecological endoscopic surgery (laparoscopic, robotic, and hysteroscopic surgery) since the late 1980s and he has performed his first total laparoscopic hysterectomy in 1990. By the mid 1990's, he held the world record for having performed the most laparoscopic hysterectomies.

Dr. Liu is well recognized internationally with his pioneer work in the field of laparoscopic surgery for POP (Pelvic Organ Prolapse) and urinary incontinence. In January of 1991, Dr. Liu performed the first laparoscopic Burch colposuspension, and the following year he performed the first laparoscopic vaginal/uterovaginal suspension by utilizing the proximal uterosacral ligament at the level of the Ischia spine. Additional contributions include the development of numerous laparoscopic procedures for reparative work, among which are techniques for laparoscopic site-specific defects repair for cystoceles caused by paravaginal defect and transverse defect, as well as enterocele repair by first clearly identifying and then re-attaching the broken edges of endopelvic fasciae. His experience also includes extensive work in the laparoscopic excisional management for severe infiltrating fibrotic endometriosis, laparoscopic surgery of bladder, ureter, and bowels for gynecologic indications, tubo-ovarian reconstruction, as well as other laparoscopic fertility-promoting procedures.

INVITED SPEECH

ART AND UTERINE PATHOLOGY: THE ROLE OF ENDOSCOPIC SURGERY

YUNG-KUEI SOONG
Linkou Chang Gung Memorial Hospital, Taiwan

ABSTRACT:

Increased ART success rates obtained over years primarily through improved embryo quality, Implantation is still considered the "black box" of ART. Pregnancy rates (PRs) range 19 and 39%; in best cases PRs only reach 61-70%. Uterus a more important than previously considered. The uterus has been frequently neglected. In recent published available review papers, the real effect of different uterine/endometrial integrity pathologies an ART is not known. Uterine and endometrial receptivity were related to the conditions related the conditions such as polyps, myomas, inadequate hormone preparation with poor ER. Endometrial lining thickness should be minimum 4-5mm, endometrial pattern--- triple-line related P4 levels, The treatment are estradiol, aspirin, Viagra, pentoxifylline, Vit E, G-CSF Uterine fibroids Impact on conception different options exist. In younger age It is a specific indication for myomectomy, momma size >4cm had significantly lower delivery rate.The route of myomectomy is also a matter of debateART can precede 3 months after surgery Nonsurgical treatment are: GnRHa, Mifepristone, Ulipristal acetate, Raloxifene, UAE, MRgFUS Sugary for treatment of adenomyosis no data aviable on ART. The adenomyosis surgically removed and GnRHa was given for 6 months had a higher pregnancy. The best way to treat uterine synaechiae is to prevent their formation by reducing the number of D&C procedures The uterine synaechiae present in any form or severity, the first-line treatment should be HSC adhesiolysis with hysteroscopic scissors to avoid thermal endometrial damage related to electrosurgery In this review based on our experience, the different outcomes and the degree of the recommendation for the different interventions will be present. The integrated approach for evaluation the uterus in women undergoing art will be proposed.

INVITED SPEECH

SENTINEL LYMPH NODE MAPPING APPLICATION FOR THE MANAGEMENT OF EARLY STAGE CERVICAL AND ENDOMETRIAL CANCER

ALESSANDRO BUDA
San Gerardo Hospital, University of Milano-Bicocca, Italy

ABSTRACT:

The Sentinel Lymph Node (SLN) biopsy represents the gold standard in the management of patients with breast and melanoma tumors. While SLN is largely accepted for early stage small volume vulvar cancer, more evidences are still requested for endometrial and cervical cancer. The combination of radiocolloid and blue dye demonstrated the better results of SLN mapping in both early stage cervical and endometrial cancer with a detection rate range from 70% to 93%. However, the complexity of procedures and associated costs, enhance the research for a new feasible and more efficient tracer. The use of near-infrared (NIR) fluorescent real-time imaging with Indocyanine Green (ICG) has been widely investigated and several groups confirmed its results in term of detection rate and bilateral mapping. Moreover, a recent meta-analysis on the detection rate and diagnostic performance has confirmed advantage in using this technique in various kinds of tumors, including gynecological malignancies. In the debate on radical lymphadenectomy in early gynecological malignancies, SLNs mapping seems to have the potential to improve the stage of the disease with lower morbidity, and several benefits for both patients and health-care system. Furthermore, SLN biopsy can have many advantages, such as more reliable detection of "key nodes" in atypical anatomic location, detection of low volume metastasis (micrometastasis or isolated tumor cell), and intraoperative triage of patients, thanks to identification of key nodes for pathologic evaluation. The objective of my presentation is to present a comprehensive overview of the more actual knowledge of the SLN concept in endometrial and cervical cancer.The use of ICG and NIR fluorescent imaging technique together with laparoscopic minimally invasive approach seems wider applicable and represents a valid alternative to robotic surgery, particularly in countries and centers where the robotic platform is not available.

INVITED SPEECH

REVOLUTION IN ENDOSCOPY "THE DIPLOMA OF MINIMAL INVASIVE GYNAECOLOGICAL SURGEON"

RUDI CAMPO
Leuven Institute for Fertility and Embryology, Belgium

BIOGRAPHY:

Rudi Campo obtained his medical qualification (MD) in 1983 at the Catholic University of Leuven, Belgium and gained his board certification in Obstetrics and Gynaecology at the University of Düsseldorf, Germany. He was the initiator and person in charge of the University ART program and has been working in the department of microsurgery until 1990. Since 1990 he joined the Leuven Institute for Fertility and Embryology (LIFE) group in Belgium as a clinical director where he took the responsibility for the IVF lab and the ambulatory reproductive surgical unit. Recently he has started to serve additionally for the IVF lab at the ZOL hospital in Genk, Belgium. He speaks fluently several European languages, such as Dutch, English, German, French and Spanish. Rudi Campo is one of the international recognized hysteroscopic surgeons with a major experience in hysteroscopic uterine, reconstructive surgery and hysteroscopic trans endometrial myometrial exploration.

His current research interests are in the field of reproductive assisted technologies, endoscopic surgery and training and education. Among other activities in different European societies he is committee member of the standing committee for training and assessment of the EBCOG, European Board & College Obstetrics and Gynaecology, President elected of the ESGE European Society for Gynaecological Endoscopy and member of the special task force ART in developing countries and SIG reproductive surgery of the ESHRE European Society for Human Reproduction and Embryology. Furthermore, he is one of the founders of The European Academy of Gynaecological Surgery to encourage the exchange of clinical experience, scientific thoughts and investigation among gynaecological endoscopists and practitioners, to establish an apolitical body for scientific research and standardization.

INVITED SPEECH

THE DIFFERENCE BETWEEN USING A DA VINCE XI AND SI SURGICAL ROBOTS IN PARAAORTIC LYMPHADENECTOMY

PETER C. LIM
Medical Director of Robotic Institute, Renown Regional Medical Center, USA

ABSTRACT:

Paraaoritc node dissection is an integral part of surgical staging for treatment of gynecologic malignancy. The challenge of minimally invasive para aortic node dissection is performing an adequate infrarenal aortic node dissection. The limitations of laparoscopic surgery in performing paraaortic node dissection is well recognized due to its rigid instrumentation and getting adequate exposure in a high BMI patient.

The second and third generation, robotic S or Si system respectively, with its wristed instrumentation have circumvented these limitations. In order to get access to the infra renal aortic node fossa to perform an infra renal aortic node dissection, double docking approach has been proposed. This dual docking approach allowed for pelvic and abdominal dissection. However, it requires either rotating the operating table or rotating the robot which I described as "robotics gymnastics maneuver". This maneuver, is dependent on adequate room in the surgical suite and also on surgical personnel to dock and redock the robot which ultimately translates to operating room inefficiency and increased operative time and may lead to surgeons frustration.

The development of the 4th generation Robotic Xi system has several new features compared to the S or Si model. The revolutionary Xi system robotic arms are suspended on a boom mounted system which allows for 360 degree rotation. This feature allows the surgeon to perform multiquadrant surgery much more efficiently which is critical as part of the surgical staging. Another feature of Xi system is the redesigned robotic arms which are thinner, lighter, and extra joint which minimizes arms clashing and allows for much greater extension to operative field. These features allows the surgeon to not be limited by the patient's body habitus. Lastly, the new endoscope is a much lighter endoscope that doesn't require draping and calibration. The new endoscope allows a feature of "port hopping" This technology allows the endoscope to be placed in any of the robotic ports which allows much more flexibility which is required in complex multiqudrant surgery such as paraaortic surgical staging procedure. Lastly, the docking of the robot is laser guided which facilitates docking.

These new features will be highlighted and discussed in performing the paraaortic node dissection.

BIOGRAPHY:

Dr. Lim earned his medical degree at Hahnemann University in Philadelphia, PA in 1990, and completed his residency at the University of Southern California, Los Angeles, CA in 1994. Dr. Lim went on to complete a Fellowship in Gynecology Oncology at Mayo Clinic, Rochester, MN in 1997. He is board certified in Gynecologic Oncology Specializing in Pelvic & Minimal Invasive Surgery. Dr. Lim is a member of the the Society of Gynecologic Oncology, American College of Obstetrics & Gynecology, Renown Board of Trustees, and the American Medical Association. He currently serves as the Medical Director of The Center of Hope and is also the Medical Director of Robotics Surgery Program at Renown Region Medical Center.

Friday, 4th November 2016

Room	102 (1st Floor)	103 (1st Floor)	105 (1st Floor)	201A (2nd Floor)
08:30	Cross-Strait Forum 1	APAGE Fellow 1	PG Workshop: Hysteroscopy	PG Workshop: Tumor Evaluation & Retrieval
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10:00	Break (Exhibition Area)			
10:30	Cross-Strait Forum 2	APAGE Fellow 2	PG Workshop: Hysteroscopy	PG Workshop: Tumor Evaluation & Retrieval
i	→ Page 13	→ Page 16		
12:00	Lunch Break (Room 101, Exhibition Area) / Lunch Symposium (4F VIP Room)			
13:30	Cross-Strait Forum 3	-	PG Workshop: Hysteroscopy	PG Workshop: Tumor Evaluation & Retrieval
i	→ Page 14			
14:30	Break (Exhibition Area)			
15:30	-	-	-	Opening Ceremony
i				
16:00	-	-	-	APAGE President Address
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16:30	-	-	-	Congress President Address
i				→ Page 5
17:00	-	-	-	Keynote 1
i				→ Page 5
17:30	Welcome Reception (Banquet Hall, 3F)			
18:30	Presidential Dinner (TWTC Club, 33F) By Invitation Only			

Keynote Lectures (Invited Speech)
Forums, Symposium, Sessions (Invited Speech)
Cross-Strait Forums (Invited Chinese Speech)

Program Overview

	201BC (2nd Floor)	201DE (2nd Floor)	201F (2nd Floor)	North Lounge (3rd Floor)
	-	PG Workshop: NOTES	PG Workshop: Suture	Urogynecology Fourm 1
				→ Page 18
	Break (Exhibition Area)			
	-	PG Workshop: NOTES	PG Workshop: Suture	Urogynecology Fourm 2
				→ Page 18
	Lunch Break (Room 101, Exhibition Area) / Lunch Symposium (4F VIP Room)			
	-	PG Workshop: NOTES	PG Workshop: Suture	Urogynecology Fourm 3
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	Break (Exhibition Area)			
	Opening Ceremony			-
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	APAGE President Address			-
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	Congress President Address			-
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	Keynote 1			-
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	Welcome Reception (Banquet Hall, 3F)			
	Presidental Dinner (TWTC Club, 33F) By Invitation Only			

Postgraduate Workshops
APAGE Fellow, Oral Presentations, Video Session, Young APAGE Group
Miscellaneous

Cross-Strait Forum 1

INVITED SPEECH

TIPS AND TRICKS IN HYSTEROSCOPIC MYOMECTOMY

LIMIN FENG
Beijing Tiantan Hospital, Capital Medical University, China

ABSTRACT:
Uterine myoma is the most common and frequent benign tumor in women. This disease attribute to the deformation of the cavity, e.g. submucousmyoma and intramural myoma can cause both abnormal uterine bleeding and fertility. Transcervical Resection of Myoma (TCRM) is the golden standard operation in treating these kinds of myoma. Varieties of operation techniques' appear as the operation skills improved and the surgical instruments upgrade. Although TCRM is becoming much safer as well as effective, its complications should be carefully monitored.

INVITED SPEECH

SAFETY AND EFFICACY IN OPERATIVE HYSTEROSCOPY FOR A BIG TYPE II SUBMUCOUS MYOMA

XIAOLEI WANG
Weihai Women and Children Hospital, China

ABSTRACT:
目的：探討宮腔鏡電切術治療大於 5cm Ⅱ型子宮粘膜下肌瘤的臨床效果以及可行性及安全性研究。方法：2001 年 1 月至 2015 年 12 月，我院婦科選擇 58 例經宮腔鏡聯合 B 超檢查證實大於 5cm 的 58 例Ⅱ型子宮粘膜下肌瘤行宮腔鏡電切手術。術前排除惡性病變，術中全程 B 超監測，術後連續病情隨訪。對部分較大肌瘤口服米非司酮 2 個月術前預處理。結果：58 例患者其中 49 例一次切除乾淨，9 例未能一次切淨改二次手術，第一次切除範圍均 ≥70%，手術滿意率達 97%，無一例發生子宮穿孔、TURP 綜合征、空氣栓塞等併發症。對 21 例患者術前給予米非司酮口服術前預處理，2 個月後子宮平均縮小 25.3%，最大肌瘤平均縮小 34.6%。16 例有生育要求者 13 例（81.25%）均已足月分娩。結論：宮腔鏡電切手術治療Ⅱ型子宮粘膜下肌瘤是安全可行的，但是術前一定要綜合評估，術中配合 B 超監測，適時選擇二次手術之決定，嚴格遵守操作規範是提高手術安全性、提高手術成功率的關鍵因素。

INVITED SPEECH

HYSTEROSCOPIC MYOMECTOMY-HOW TO PROTECT ENDOMETRIUM

HUA DUAN
Beijing Obstetrics and Gynecology Hospital, China

INVITED SPEECH

THE APPLIED REASEARCH AND GENERALIZATION IDEAS OF FAST TRACK SURGERY IN THE AREA OF HYSTEROSCOPY SURGERY

TIANYUAN ZHU
Lanzhou Shi Fu You Bao Jian Yuan, China

ABSTRACT:
年來，基於微創外科、疼痛控制及圍手術期病理生理等領域的研究進展，外科治療理念發生了革命性的變革，一種稱之為 " 快速康復外科 "(fast track surgery,FTS) 的技術模式應運而生。這個概念最早由丹麥外科醫生 Kehlet 在上世紀 90 年代提出，它改變了傳統圍手術期處理的思維方式和行為原則。它是指在術前、術中及術後應用各種已證實有效的方法減少手術應激及併發症，加速患者術後康復，縮短住院時間，降低住院治療總費用的一項綜合措施。歐美許多國家對其可行性進行了研究並取得了理想效果，近年來這個理念在中國大陸也推廣並應用，目前廣泛應用至外科各種手術的部分流程中。但在婦科領域，還沒有形成完善的流程。它的具體特點如下：
術前：傳統外科多強調手術和藥物治療為主，而快速康復外科更強調術前心理治療，術前禁食禁飲時間的改變是快速康復外科的一項重要內容。術前 2h 禁飲與傳統禁食、禁飲相比，無不良反應，相反，噁心、嘔吐的發生率較低。現在提出在術前靜脈給予葡萄糖或麻醉前 2h 讓病人口服糖類液體 (12.5% 的葡萄糖液 400ml), 結果可減少術後胰島素抵抗的發生或減輕；
術中：1）麻醉改良：多種類、低劑量的符合麻醉，既提高了麻醉效果，又降低了用藥量，減少了麻醉藥品對機體的副反應；2）同時術前、術中、術後有效地鎮痛，降低了手術的應激反應及併發症的發生；3）微創外科理念的提出，包括：選擇小切口，日益提高的醫療技術，微創技術的普遍應用及精益求精的手術技巧，最少的手術操作干擾、最小的手術切口或無切口（通過人體自然腔道手術）、最佳的內環境穩定、最輕的炎症反應和最快的術後恢復過程及最低的心理創傷等微創效果；手術後避免使用各種導管；
術後：圍手術期限制液體輸入、保持體溫恒定，術後早活動、早進食，促進體能恢復，取得良好效果。
2014 年我院派團隊赴丹麥哥本哈根大學哈威德夫醫院學習外科快速康復技術，回國後醫院給予大力支持，即將該項技術試行應用，目前在宮腔鏡中心應用情況良好，患者術前情緒穩定，術中、術後疼痛情況較傳統方法明顯下降，術後 24-48 小時即可離院回家休養，住院天數減少，圍手術期併發症發生率下降，醫療糾紛減少。患者評價好。

與傳統醫療模式相比較，它是醫療理念、醫療中心和治療模式的改變，首先是思維方式的重大變化。應用快速康復技術，可以規範提升我們的醫療水準，降低醫療糾紛，當形成一個良性迴圈後也可以合理利用醫療資源，減少住院日，降低患者的就醫成本。使過去許多需要較長時間住院的手術甚至可以按日間手術模式完成；這種手術模式近 20 餘年在歐美國家迅猛發展，近年日間手術量已占其擇期手術的 70% ~ 80% 。
傳統醫療模式中，因為傳統手術的慣性思維、技術水準不足、理論概念不夠清晰，以及患者病情複雜、手術範圍大、手術時間長、損傷大、出血多等，手術後噁心、嘔吐反應，懼怕手術後腸梗阻，習慣使用各種導管（鼻導管等），手術後往往禁食時間過長，患者恢復較慢，延遲出院時間。

在新的歷史時期，手術目的已經遠非僅僅為了去除病變和修復組織，更重要的是使患病的人得到整體康復。因此，很有必要對圍手術期快速康復進行深入探討。微創和快速康復是 FTS 的主要思想，也是外科醫學發展成熟的標誌。

通過 FTS 在臨床醫療中的應用，減少手術創傷的生理心理應激反應，減少重要器官的功能紊亂，維持患者內環境穩定，降低術中及手術後併發症，加速患者術後康復，縮短住院時間，降低住院費用，大大提高了患者的滿意度。同時，醫院通過該項技術的應用，大大減少醫務人員工作量，避免、減少院內感染，大大地增加了醫患溝通，使患者的信任度及依存性增加，減少、避免醫療糾紛，增加了醫院的知名度，形成了很好的良性迴圈。

但是 FTS 遠遠不是以上所說那麼簡單，它需要設立嚴格的手術准入制度，對 FTS 的術式制定詳細嚴謹的判斷準則，對於患者有准入要求，對於醫生、麻醉團隊、護理團隊等參與其中工作的醫務人員都有一定的要求，並設立全面完善的應急預案。

施行快速康復技術的目的和意義：使患者儘快恢復，縮短住院日，早日回歸家庭和社會，緩解醫務人員工作壓力，減少醫療資源的浪費，減輕沉重的醫保負擔，真正做到“以患者為中心”，得益于患者，得益于社會，是一件利國益民的好事。

但是，說起來容易，做起來困難。團隊的領頭人是否真正認同團隊的協作精神？能否持之以恆？是否能放下自我的想法？犧牲小我，成全大我？

首先，團隊的合作，領導的理解與大力支持，是成功的關鍵。我們還需要轉變傳統的治療理念，強化護理工作的重要，規範化培訓護理工作的轉型，婦科醫師規範化培訓分級手術，階梯式帶教，重視手術前後的鎮痛，入院患者嚴格篩選，注意手術技巧，控制手術時間，降低併發症的人為因素，及時、有效的醫患溝通、醫護溝通。加速現代醫療工作的再進步！

INVITED SPEECH

ROBOT-ASSISTED TUBAL REANASTOMOSIS: INITIAL EXPERIENCE IN CATHAY GENERAL HOSPITAL

TSUNG-HSUAN LAI
Chief of Assisted Reproductive Technologies Center, Cathay General Hospital, Taiwan

Cross-Strait Forum 2

INVITED SPEECH

APPLICATION OF MINIMALLY INVASIVE SURGERY IN PELVIC INFLAMMATORY DISEASE

YU ZHANG
Xiangya Hospital, Central South University, China

ABSTRACT:

Objective: To investigate the clinical treatment and prognosis of pelvic abscess in female patients. Methods 103 pelvic abscess cases (including pyosalpinx and tubo-ovarian abscess) from Xiangya Hospital, Central South University collected from July 2011 to July 2016 were analyzed retrospectively. Results : The the average age is 39.4(13 to 60) years, and Gram negative bacteria, such as Escherichia coli and Enterococcus faecalis are the commonest pathogens. While sometimes it can be a mixed-infection combined mycoplasma with anaerobes. Early symptoms include lower abdominal pain with fever, pelvic mass with mixed echogenicity under ultrasonography.Most of the cases alleviated after treatment withthe third generation cephalosporins (such as ceftriaxone) and metronidazole, while tetracycline was needed for anti-mycoplasma treatment in some situation. Among the 103 cases, 55 cases were performed with primary operation (26 cases received open surgery, and other 29 cases received laparoscopic surgery), 6 cases received puncture and drainage under ultrasonic , and 3 cases were treated with transvaginal culdocentesis, while another 39 cases use antibiotic treatment only. The average total length of stay(LOS)and LOS after operation of patients who received open surgery were 12.9 days and 8.3 days respectively; while in patients who received laparoscopic surgery were 10.2 days and 7.2 days respectively; patients who received transvaginal culdocentesis had an average LOS for 11.8 days; and the average LOS of patients who chose expectant treatment was 9.3 days. Conclusion Pelvic abscess is a common disease in reproductive women. The etiological feature is mixed infection. Most patients get alleviated after active anti-infection treatment. Mini Invasive surgery should also be performed to shorten the anti-infection treatment and hospitalization time.

INVITED SPEECH

THE SURGICAL TREATMENT OF ABNORMAL SITUATION IN GYNECOLOGIC LAPAROSCOPIC SURGERY

JIE CHEN
Fujian Provincial Hospital, China

INVITED SPEECH

LAPAROENDOSCOPIC SINGLE-SITE SURGEY IN CHINA

DAIWEI SUN
Peking Union Medical College Hospital, China

ABSTRACT:

外科學發展至今，進入了微創外科的新時代。微創外科是指以最小的創傷達到最大的效果，婦科腹腔鏡手術發展至今其技術日臻完善，但也面臨著如何追求更加體現微創理念，帶給患者更多人文關懷的問題。單孔腹腔鏡手術技術（laparoendoscopic single site surgery，LESS ）是基於近年來興起的自然腔道內鏡手術（natural orifice transluminal endoscopic surgery，NOTES）的基本理念，即減少或隱藏手術瘢痕，減輕術後疼痛，促進術後康復而開展起來的。經臍單孔腹腔鏡手術技術，將手術切口隱藏于臍孔或臍周，利用人類先天殘留的自然瘢痕，使手術幾乎不留

瘢痕，具有突出的美容優勢 , 也是對傳統腔鏡技術的進一步發展和有益補充。

在中國大陸，雖然單孔腹腔鏡手術在婦科領域起步較晚，但是一直在堅持探索中前進。1981 年，何萃華等報告了經臍單孔腹腔鏡的女性絕育手術 74 例分析，使用帶偏移目鏡的腹腔鏡，用單極式電凝電切輸卵管絕育的方法，取得滿意的效果。2008 年， 高樹生等報告了國內宮外孕應用經臍單孔腹腔鏡輸卵管切除術。2009 年，高樹生等報告了經臍單孔腹腔鏡卵巢囊腫剝除術，並嘗試應用所謂 “如同牽線木偶” 的經皮吊索縫合提拉固定卵巢。2011 年馬秀清報告國人經臍單孔腹腔鏡輔助陰式全子宮切除術。
可喜的是我們看到，近年來國內婦產科醫生在此方面的探索，保持了和國際同步，其中北京協和醫院團隊的工作具有代表性；2014 年，熊巍等報告了經臍單孔腹腔鏡與傳統三孔腹腔鏡卵巢囊腫剔除術的對比研究，證明單孔腹腔鏡治療婦科良性卵巢囊腫是安全可行的，且能明顯減輕患者術後疼痛，術後能達到更好的美容效果。2014 年，張俊吉等報告了單孔腹腔鏡子宮全切除術 23 例臨床報告，創造性的應用自固定倒刺縫合線縫合陰道殘端，跨越了單孔腹腔鏡下縫合打結的難點，做到完全單孔腹腔鏡下子宮切除術。2014 年，孫大為等單孔腹腔鏡下子宮內膜癌分期手術的臨床報告，初步探索了單孔腹腔鏡下子宮內膜癌分期手術的可行性及臨床效果。

雖然使用單切口腹腔鏡輸卵管結紮術開創了單孔腹腔鏡手術在臨床應用的先河，但是我們要認識到單孔腹腔鏡手術在婦科領域裡的應用，仍是該項技術在大外科手術領域裡應用的一部分，互相借鑒，互相促進，共同發展。其原始動力來源於微創理念和對患者的人文關懷。技術的創新、設備的創新和臨床科學研究的深入起到了決定性的推動作用。基於此，可以預言，LESS 必將在婦科手術領域佔有重要的一席之地 ，並將不斷地發展。

INVITED SPEECH

LAPAROSCOPIC UTERINE ARTERY OCCLUSION TO TREAT SYMPTOMATIC UTERINE MYOMAS: CLINICAL APPLICATIONS AND BASIC RESEARCH

WEIHONG YANG
Tonji University Attached Yangpu Hospital, China

ABSTRACT:

Uterine myomas is one of the common benign tumor in women of reproductive age. With the changes of peoples' view and the development of gynecologic minimal invasive technology, most of patients with symptomatic uterine myomas prefer to performed uterus-sparing surgical treatment by laparoscopy or hysteroscopy. But the approach of myomectomy alone showed higher recurrent rate of myomas, meanwhile, laparoscopic myomectomy was limited and more difficult when the tumor was multi-myomas or with the diameter of greater than 8cm or located in cervix or broad ligament. Since 2000, we initiated the combined surgical procedure of laparoscopic uterine artery occlusion plus myomectomy (LUAO+LM) to treat symptomatic uterine myomas in order to decrease bleeding during myomectomy surgery, and expand the indications of laparoscopic myomectomy and improve surgical quality. Reviewing precious clinical studies, it was showed that the combined surgery of LUAO+LM had the advances in postoperative morbidity, reduction of uterine volume, remission rate of menorrhagia symptom and recurrence rate of leiomyoma, when compared to laparoscopic myomectomy (LM) alone. At the same time, more difficult myomectomy surgery described as above could be also performed completely.
Subsequently, some basic researches were carried out to explain the mechanisms of uterine artery occlusion (UAO). It was evidenced that myoma cells tend to apoptosis under hypoxia or ischemic condition, compared to smooth muscle cell. Then we proposed the hypothesis of single-organ uterus shock to explain the therapeutic mechanism of UAO.
Last year, we completed a multicenter study to evaluate the clinical effects of LUAO+LM to treat symptomatic uterine leiomyomas. The outcomes showed that the combined surgery of LUAO plus LM presented approving clinical effects addressing the improvement of surgical quality, relief of abnormal symptoms and decline of recurrence of myomas. For the women with symptomatic uterine myomas who wish to preserve their uterus, it's recommended to perform LUAO plus LM.

Cross-Strait Forum 3

INVITED SPEECH

A COMPARISON OF 2D-, 3D- AND ROBOTIC-ASSISTED LAPAROSCOPIC RADICAL HYSTERECTOMY FOR EARLY-STAGE CERVICAL CANCER: A SINGLE SURGEON'S EXPERIENCE

XISHI LIU
The Obstetrics & Gynecology Hospital of Fudan University, China

INVITED SPEECH

VALUE OF LAPAROSCOPIC RETROPERITONEAL PARA-AORTIC LYMPH NODE DISSECTION IN THE DIAGNOSIS AND TREATMENT OF ADVANCED CERVICAL

LI LI
The Affiliated Cancer Hospital of Guangxi Medical University, China

INVITED SPEECH

NERVE-SPARING IN LAPAROSCOPIC INTRAFASCIAL HYSTERECTOMY

XIANCHAO KONG
The Second Affiliated Hospital of Harbin Medical University, China

ABSTRACT:

In classic laparoscopic hysterectomy, the bladder is dissected

or pushed down, and the uterus is removed by cutting the uterosacral and cardinal ligament. Damage of these structures may lead to progressive damage of the pelvic nervous system or pelvic support that results in future incontinence and sexual dysfunction. In intrafascial hysterectomy, the vesicocervical ligament which prevents herniation of the bladder and urethra into the vagina is severed. Laparoscopic intrastromal hysterectomy, is an easily performed nerve-sparing approach. In this procedure, the cervix and uterus are removed from the outer stroma of the cervix—pericervical ring. The functional part of the cervical stroma or pericervical ring is left intact, and the integrity of the ligaments and vesicocervical ligament is maintained, avoiding injury to the pelvic supportive and nervous system. Promising advantages have been achieved, including less blood loss, shorter hospital stay and less reported postoperative complications.

INVITED SPEECH

THE ROLE OF LAPAROSCOPIC SURGERY TO MANAGE TO RECURRENT OVARIAN CANCEL

ZHONGPING CHENG
Yangpu Hospital, China

ABSTRACT:

Ovarian cancer is the most lethal gynecologic malignancy. In more than 75% of patients, initial diagnosis is made at stage of III or IV of the disease. Though the advance in surgery and chemotherapy protocols, overall prognosis remains relatively poor. Most of patients who present with advanced disease will develop recurrence within 18 months. Late detection, intrinsic and acquired chemoresistance and remarkable heterogeneity are mainly responsible for this clinical outcomes.

Owning to the progressive study of molecular genetics, the notion of ovarian cancer description and diagnosis is changing. A new classification was proposed that separated ovarian cancers into type I and II tumors. Type I tumors were low grade serous; some (endometrioid, mucinous, and clear cell types) harboured mutations in BRAF, KRAS, and PTEN with microsatellite instability. Type II tumors included high-grade serous and carcinosarcoma, which frequently contain mutations in p53, BRCA1, and BRCA2. These designations and studies have led to understanding the sources of the cancers, now shaping our thinking on early detection and prevention strategies, and focusing our therapeutic strategies. The prevalent type-associated underlying genetic signatures have been laid upon the personalized medicine or targeted treatment over the next decade.

The standard therapeutic approach for advanced ovarian cancer is upfront cytoreductive surgery followed by a combination of platinum and taxane-based chemotherapy. A plenty of studies have demonstrated a strong prognostic link between degree of post-operative residual disease and objective clinical and pathological complete response rates, progression-free and overall survival. Patients with no visible residual, so called R0 resection, appear to have the best overall outcomes. M.D. Anderson cancer center proposed that an algorithm that identifies patients likely to achieve complete gross resection at primary surgery would be expected to improve patient survival. We initiate the comprehensive therapy that combines the Anderson algorithm with the precise or personalized medicine base on molecular genetics of ovarian cancer to manage to recurrent ovarian cancer.

By the routine assessments including physical exams, serum CA125 level and images screening of TVS/CT/MR/pet-CT, recurrent ovarian cancer was considered. Laparoscopic tumor evaluation as secondary look surgery was performed. According to the Anderson algorithm, predictive index value (PIV) was utilized to determine ability to completely resect the recurrent or residual disease. Patients with scores of PIV < 8 proceed with secondary cytoreductive surgery by laparoscopy or laparotomy. Patients with scores of PIV ≥ 8 receive biopsies or Ileostomy/colostomy/colectomy. Subsequently post-operative patients are given the chemotherapy that emphasizes the new treatment strategies composed of molecular targeted treatment or alternative immune strategies.

The management of laparoscopic assessment combined with molecular or immune treatments appears to be an optimal strategies for recurrent ovarian cancer highlighting personalized surgery and precise medicine.

APAGE Fellow 1

INVITED SPEECH

LAPAROSCOPIC UTERINE ARTERY LIGATION FOR SYMPTOMATIC UTERUS

JONGRAK THEPSUWAN
Samitivej Thonburi Hospital, Bangkok, Thailand

ABSTRACT:

One of the most common symptomatic uterine pathologies is uterine leiomyoma, the symptomatic problems, such as bleeding, dysmenorrhea, and infertility are necessary for treatment. Laparoscopic myomectomy or total laparoscopic hysterectomy are the treatment options for these. The major concern either of laparoscopic myomectomy or hysterectomy is the bleeding encountered during the procedure. Most studies have aimed at ways of reducing blood loss during the procedures. There are various ways in which bleeding during laparoscopic myomectomy or hysterectomy can be reduced, the most reliable of which is ligation of the uterine vessels bilaterally. The author propose to review and share experience about the standard and variety of key steps in identification and isolation of the variation, approaching the uterine artery origin. The author also review the benefits and possible disadvantages of ligating the uterine arteries bilaterally before performing laparoscopic myomectomy or hysterectomy. In conclusion, laparoscopic myomectomy or hysterectomy with uterine artery ligation is a technically feasible procedure. Ligating the uterine arteries bilaterally with either the ascending branch or at its origin from the internal iliac, considerably reduces blood loss during myomectomy or hysterectomy. It also helps to shrink small leiomyoma and prevent the recurrence of leiomyoma. In the case of distort anatomy such as large fibroids, endometriosis, adhesions from previous pelvic surgeries, or ovarian remnants, the detailed anatomic knowledge of the course of the uterine artery and understanding of vascular variations are essential for optimal procedures. Keywords: Laparoscopic myomectomy, laparoscopic hysterectomy, uterine leiomyoma, uterine artery ligation, symptomatic uterus.

INVITED SPEECH

CONTROVERSIAL ISSUES AND SURGICAL TECHNIQUES ON LAPAROSCOPIC MANAGEMENT OF OVARIAN CANCER

ANGELITO MAGNO
De La Salle University Medical Center/ De La Salle Health Science Institute College of Medicine, Philippines

ABSTRACT:

Laparoscopic management of ovarian cancer remains to be controversial, primarily due to lack of randomized controlled trials and due to a number of controversial issues, which include feasibility and safety of laparoscopy in different stages of ovarian cancer; issue of tumor rupture and spillage; management of huge ovarian mass suspected of malignancy; and port-site metastasis. However, many reports and literatures have shown success of its use without compromising patients' survival. There are surgical techniques to overcome these issues. Ultimately, proper training in advanced gynecologic laparoscopy and good patient choice are key in successful laparoscopic management of ovarian cancer.

INVITED SPEECH

OVARIAN PRESERVATION IN ENDOMETRIAL CANCER

RENEE VINA GAVINO SICAM
University of the Philippines-Philippine General Hospital, Philippines

ABSTRACT:

Conventionally, bilateral salpingo-oophorectomy is performed during hysterectomy for endometrial cancer. The rationale is that endometrial cancer is an estrogen-dependent tumor and that estrogen may stimulate residual foci of cancer cells causing recurrence. At present, there are no clinical studies verifying this phenomenon. Several investigators have shown that retaining the ovaries may not affect the course of the disease. A recent population-based analysis of women younger than 50 years of age undergoing hysterectomy for stage I endometrioid adenocarcinoma of the endometrium were stratified to those undergoing oophorectomy or had ovarian conservation. Out of the cohort of 15,648 women, 1,121 patients (7.2 %) had their ovaries preserved. A multivariate model and Kaplan-Meier analysis showed that ovarian conservation did not adversely affect survival.1 Similarly, a study using the Surveillance, Epidemiology, and End Results Database revealed that ovarian preservation had no affect on cancer-free and overall survival.2 Likewise, the Korean Gynecologic Oncology Group demonstrated it had no effect on recurrence-free survival or overall survival in premenopausal women with early-stage endometrial cancer.3

Another concern is that the ovaries may contain occult ovarian metastasis or synchronous ovarian tumors. Lin et al. performed a retrospective review of 759 patients with stage I, II and III endometrial cancer, and found that 15 patients (2%) had ovarian metastasis, while 23 patients (3%) had synchronous endometrial and ovarian cancer. Enlarged ovaries or abnormal appearing surface was seen in 32 out of 38 patients with ovarian involvement. Six patients (0.8%) had normal looking ovaries but had microscopic involvement, all of which had poor differentiation, deep myometrial invasion, and extrauterine involvement of the cervix or lymph nodes. They recommended that in the absence of these features, ovarian preservation can be performed for grossly normal ovaries.4

Herein we present a case of a 33 year-old nulligravid with endometrioid adenocarcinoma of the endometrium, who underwent total laparoscopic hysterectomy with bilateral salpingo-oophorectomy, bilateral pelvic lymph node dissection and peritoneal fluid cytology. She had no significant family history of cancer. Preoperative ultrasound showed no myometrial invasion or adnexal involvement. Laparoscopy showed normal ovaries. Final histopathology revealed grade 2 endometrioid carcinoma stage IA. On surveillance for one year and 8 months, she has no evidence of disease. In early stage endometrial cancer, it may be reasonable to retain the ovaries for premenopausal patients.

INVITED SPEECH

URETERAL ENDOMETRIOSIS: A REVIEW

MARGARET GO CHAN
Chinese General Hospital and Medical Center, Philippines

ABSTRACT:

The clinicopathologic features of endometriosis compound the significance of its ureteric lesions, albeit rare, as a major contributor of morbidity among women of reproductive age group. Available scientific papers on ureteral endometriosis are condensed to provide an overview of the prevailing concepts on its clinicopathology and varied approaches to diagnosis and management with emphasis on the utility of laparoscopy in the advent of minimally invasive therapy.

APAGE Fellow 2

INVITED SPEECH

HOW TO IDENTIFY UTERINE ARTERY

PINNAPARNG SRIPAHOL
Charoenkrungpracharak Hospital, Bangkok, Thailand

ABSTRACT:

There has many methods and techniques to identified the uterine artery, depends on the surgeon preferable and anatomical finding in each case. 1. Anterior approach by careful inspection over the paravesical area to fine the pulsation of the uterine artery. Then the peritoneum above pulsation area is elevated and

incised transversly. The space between leaf of broad ligament is dissected by pneumodissection and blunt dissection to find uterine artery at the base of the broad ligament. Differentiate uterine artery from ureter by seeing pulsation and vermiculation (peristalsis). Then uterine artery is skeletonized and should be ligated at the point which is lateral to its crossing over the ureter. 2. Posterior approach This approach is suitable for the cases of lower segment myomas or cervical myomas which anterior approach or lateral approach can be difficult. This approach can ligate the uterine vessels at their origin from the anterior division of the internal iliac artery. Point of dissection is the triangle enclosed by the round ligament, external iliac artery and infundibulopelvic ligament. Peritoneum at this point is elevated and incised. Then areolar space is dissected to find the origin of uterine artery from internal iliac artery. Ureter and its relation to the uterine artery should be identified to prevent accidentally injure. Uterine artery is isolated from surrounded structure and ligated. Another point of dissection is peritoneum between round ligament, Infundibulopelvic ligament and ureter. Peritoneum is opened and dissected to find the origin of uterine artery in the same way. 3. Lateral approach by through retrograde umbilical ligament tracking This approach is suitable for distorted pelvic cavity. The obliterated umbilical arteries or the medial umbilical ligaments can be a useful landmark to identify uterine artery, by pulling on the obliterated umbilical artery. Firstly, retroperitoneum was opened along the lateral triangle with the infundibulopelvic and umbilical ligament. Then umbilical ligament was retrogradely dissected with a grasper to identify uterine artery from its origin of branching from the internal iliac artery. A window below uterine artery was made and uterine artery was ligated at the point at its origin of branching from internal iliac artery. The superior vesical artery also can be identified as a branch of the internal iliac artery caudal to the uterine artery. 4. Identifying the main trunk of the uterine artery by tracing its superior branch This method is useful when posterior approach is difficult or posterior of the broad ligament is obscured. Point of dissection is identified at anterior broad ligament underneath the round ligament 2 cm lateral to uterine isthmus. Anterior broad ligament was shortly incised and opened by bluntly dissection until the superior branch of uterine artery was clearly seen. The uterus was deviated to opposite side to tense peritoneum to make the dissection easy. Then superior branch of uterine artery was traced down to find the uterine artery which crossing over the ureter. Then uterine artery was skeletonized and differentiated from ureter. Uterine artery was ligated at the point of uterine artery just crossing over the ureter. 5. Pararectal approach This method can be use when laparoscopic hysterectomy was done. Round ligament was grasped, coagulated and transected. Then peritoneum along the infundibulopelvic ligament was opened in the direction of colon cecum line. The pararectal space was opened bluntly to find the bifurcation of common iliac artery. Ureter was identified and push away medially. Internal iliac artery was tracing down to find the origin of the uterine artery branching from internal iliac artery. The uterine artery was skeletonized and ligated over a distance of 1-1.5 cm from its origin.

INVITED SPEECH

SENTINEL LYMPH NODES IN ENDOMETRIAL CANCER

JOÃO CASANOVA
Department of Surgery, Gynecology Service, Memorial Sloan-Kettering Cancer Center, Portugal

INVITED SPEECH

CESAREAN SECTION SCAR PREGNANCY

ANGELICA ANNE A. CHUA
St. Luke's Medical Center Global City and Quezon City, Philippines

ABSTRACT:

OBJECTIVE: To report the successful treatment of cesarean scar pregnancy by laparoscopy.
Methods: This is a case report of a patient that was accurately diagnosed with cesarean section scar pregnancy and successfully treated by laparoscopy.

RESULTS: A 38 G2P1(1001) who had a previous cesarean section for arrest in cervical dilatation consulted because of vaginal spotting. No other symptoms were noted. She had a positive pregnancy test. The transvaginal ultrasound showed a single live pregnancy 8 1/7 weeks age of gestation with good cardiac activity and sonographic features consistent with an unruptured cesarean section scar pregnancy. Total serum -HCG was 461,105 miu/ml. Ultrasound guided laparoscopic excision of cesarean section scar pregnancy, repair of cesarean section scar defect and completion curettage was done. She had an unremarkable post-operative course and was discharged after two days. Total serum -HCG was monitored and went down to normal levels after three months without any intervention.

CONCLUSION: The laparoscopic approach is a successful, safe and well-tolerated minimally invasive treatment for cesarean section scar pregnancy.

INVITED SPEECH

THE BASIS OF MINIMAL INVASIVE SURGERY

SOSHI KUSUNOKI
Juntendo Nerima Hospital, Japan

ABSTRACT:

Laparoscopic approach was established as a safe and feasible alternative to open laparotomy. Complication and conversion rate can decrease with the progress of surgical technique and instruments, however these never reach zero. The reason is considered that surgeons try to perform more advanced procedures and use more difficult approaches with their improvement of skills. So the surgeons must keep training to decrease complication rate as less as possible and are required to be more trained and have surgical skills. I will present the basis of minimal invasive surgery including approaches, electrosurgical devices, suturing techniques and complications we must avoid.

Urogynecology Forum 1

INVITED SPEECH

PRE-OPERATIVE ASSESSMENTS OF FEMALE STRESS URINARY INCONTINENCE

HSIN-YING LIN
Department of Obstetrics and Gynecology, Kaohsiung Veterans General Hospital, Taiwan

INVITED SPEECH

RECENTLY ADVANCE IN SURGICAL TREATMENT OF FEMALE STRESS UINARY INCONTINENCE

WEN-YIH WU
Department of Obstetrics and Gynecology, Far Eastern Memorial Hospital, Taiwan

INVITED SPEECH

MANAGEMENT OF RECURRENT SUI AND MIXED URINARY INCONTINENCE

MING-PING WU
Department of Obstetrics and Gynecology, Chi Mei Hospital, Taiwan

Urogynecology Forum 2

INVITED SPEECH

CONSERVATIVE TREATMENT OF SUI AND POP

YI-HAO LIN
Department of Obstetrics and Gynecology, Linkou Chang Gung Memorial Hospital, Taiwan

INVITED SPEECH

TRANSVAGINAL TREATMENT OF PELVIC ORGAN PROLAPSE

FEI-CHI CHUANG
Department of Obstetrics and Gynecology, Kaohsiung Chang Gung Memorial Hospital

INVITED SPEECH

LAPAROSCOPIC/ROBOTIC SACROCOLPOPEXY/SACROHYSTEROPEXY FOR UTERINE PROLAPSE

KUAN-HUI HUANG
Department of Obstetrics and Gynecology, Kaohsiung Chang Gung Memorial Hospital

Urogynecology Forum 3

INVITED SPEECH

PREVENTION AND MANAGEMENT OF COMPLICATIONS IN PELVIC RECONSTRUCTIVE SURGERY

CHUN-SHOU HSU
Department of Obstetrics and Gynecology, Dalin Tzu Chi Hospital

INVITED SPEECH

EVALUATION OF PELVIC ORGAN PROLAPSE AND CONSERVATIVE TREATMENT

SHENG-MOU HSIAO
Department of Obstetrics and Gynecology, Far Eastern Memorial Hospital, Taiwan

INVITED SPEECH

PHARMACOLOGIC TREATMENT OF OVERACTIVE BLADDER

SAN-NUNG CHEN
Department of Obstetrics and Gynecology, Kaohsiung Veterans General Hospital, Taiwan

Lunch Symposium 1

INVITED SPEECH

FERTILITY NERVE SPARING RADICAL TRACHELECTOMY

PETER C. LIM
Medical Director of Robotic Insititute, Renown Regional Medical Center, USA

ABSTRACT:
Cervical cancer is the second most common malignancy in women worldwide. Radical hysterectomy has been the mainstay treatment for early stage cervical cancer. However, in young women with early stage cervical cancer who desires preserve fertility, alternative surgical procedure such as radical trachelectomy is an option. Radical trachelectomy is a curative conservative procedure in which the cervix, upper vagina, parametria and paracolpos are resected while preserving the uterine corpus and fundus.

Radical trachelectomy can be approached abdominally, vaginally, laparoscopically or robotically. In 1994, Dargent et al reported the first laparoscopic pelvic lymphadenectomy followed by radical vaginal trachelectomy.

An integral part of radical trachelectomy procedure is the resection of the parametrial complex. Understanding the anatomical relationship of the ureter, hypogastric nerve plexsuses and uterine vessels is critical in minimizing surgical morbidity.

Robotic surgical platform with its 3D 40X magnification and High Definition Endoscope allows the surgeon to identify these pertinent structures and its endowristed instrumentation allows skeletonization and dissetion of the ureter, nerve plexsuses and uterine vessels to circumvent the morbidity.

Appropriate patient selection is crucial in performing fertility sparing surgical procedure.

The lecture will review the anatomy of the parametrial complex and tips and tricks of performing a robotic assisted nerve sparing radical trachelectomy. The outcomes of fertility nerve sparing of radical trachelecotmy will also be discussed.

INVITED SPEECH

ROBOTIC PELVIC AND PARAAORTIC DISSECTION

KUNG-LIAHNG WANG
Superintendent, Taitung Mackay Memorial Hospital, Taiwan

ABSTRACT:
Lymphadenectomy, either a partial lymphadenectomy (lymph node sampling) or complete pelvic and para-aortic lymphadenectomy provides the most accurate information on lymph node status in patients with gynecologic cancer. Nodal metastases have important prognostic and therapeutic implications on the survival of these patients. Since the first documentations of laparoscopic lymphadenectomy by Dargent in 1987 to the comparison of laparoscopically assisted radical vaginal hysterectomy (LARVH) with radical abdominal hysterectomy (ARH) by Steed et al. in 2004, long-term follow-up and comparative studies highlight the use of modern laparoscopy in the field of gynecological oncology. It is clear that we can manage several gynecologic malignancies after more than ten years of experience with laparoscopic procedures. Laparoscopy has emerged as the new surgical approach that can potentially replace the conventional role of surgery by laparotomy for the treatment of patients with early gynecologic cancer. This type of surgery is associated with significantly more benefits than the conventional laparotomy. It renders the patients little blood loss, short hospital stay, quick recovery time, less need for analgesia, rapid return to normal daily activity, and a better cosmetic appearance. Moreover, laparoscopy not only possesses an outstanding feature of minimal postoperative peritoneal adhesion, but it also does not compromise the survival and recurrence rates of the patients with early gynecologic cancer. More and more gynecologic surgeons perform laparoscopic pelvic and paraaortic dissection for the management in patients diagnosed with gynecologic cancer. However, these techniques have not seen widespread adoption because of technical difficulties, long surgeons' learning curve and long operative time. The da Vinci Surgical System (Intuitive Surgical, Inc, Sunnyvale, CA, USA) was approved by the U.S. Food and Drug Administration for the use in gynecologic procedures in 2005. The advantages of this epochal minimally invasive platform include high definition three-dimensional (3-D) camera of vision, instruments with wrist-like range of motion, surgeon's tremor inhibition, better ergonomics, and a faster learning curve compared to traditional laparoscopy. This robotic assisted laparoscopic surgical system approves to be feasible, safe, and facilitates performing more complex, multiple intra-corporal suturing procedures. Currently the robotic assisted laparoscopy is mainly applied in hysterectomy, myomectomy, adnexal surgery, sarcro-colpopexy, endometriosis and tubal reanastomosis. Robotic surgery obviously overcomes the bottle neck of traditional laparoscopy, and is embraced in gynecologic oncology widely and rapidly. The intraoperative benefits of the robotic technique include minimal blood loss, less adhesion formation and better visual perspective. Many patients with gynecologic cancers may benefit from robotic-assisted radical hysterectomy, robotic-assisted staging, evaluation, or a combination of them. There is no question that the complication rate of robotic pelvic and paraaortic dissection is extremely low in the hands of experienced gynecologists. It has become a popular and widespread technique accepted by gynecologic oncologists as an appropriate alternative to conventional surgery in the management of patients with gynecologic cancer.

Saturday, 5th November 2016

Room	102 (1st Floor)	103 (1st Floor)	105 (1st Floor)	201A (2nd Floor)
08:30	-	-	-	-
i				
09:00	-	-	-	-
i				
09:30	-	-	-	-
i				
10:00	Break (Exhibition Area)			
10:30	-	-	-	-
i				
11:00	-	-	-	-
i				
11:30	-	-	-	-
i				
12:00	Lunch Break (Room 101 Exhibition Area) / Lunch Symposium (3F Banquet Hall & 4F VIP Room)			
13:00	Cross-Strait Forum 4	Symposium 1: Morcellation	Symposium 5: Hysterectomy	Symposium 7: General/Benign
i	→ Page 22	→ Page 25	→ Page 28	→ Page 30
14:00	Cross-Strait Forum 5	Symposium 2: Hysteroscopy & LESS/NOTES	Symposium 6: Urology	Symposium 8: General/Benign
i	→ Page 23	→ Page 25	→ Page 28	→ Page 30
15:00	Break (Exhibition Area)			
15:30	Endometriosis Session	Symposium 3: Hysteroscopy & LESS/NOTES	Young APAGE Group 1	Symposium9: General/Benign
i	→ Page 23	→ Page 26	→ Page 39	→ Page 31
16:30	Endometriosis Session	Symposium 4: Obstetrics	Young APAGE Group 2	Symposium 10: Oncology
i	→ Page 24	→ Page 27	→ Page 39	→ Page 33
17:30	Transportation Service available at the Lobby			
18:30	Gala Dinner (Taipei Marriott Hotel) Pre-registration Required			

Keynote Lectures (Invited Speech)
Forums, Symposium, Sessions (Invited Speech)
Cross-Strait Forums (Invited Chinese Speech)

Program Overview

	201BC (2nd Floor)	201DE (2nd Floor)	201F (2nd Floor)
	Keynote 2	Keynote 6	Fluorescence Imagaing Course (Organized by KARL STORZ Endoscopy Japan)
	→ Page 6	→ Page 8	
	Keynote 3	Keynote 7	
		→ Page 8	
		Keynote 8	
	→ Page 6	→ Page 8	
	Break (Exhibition Area)		
	Keynote 4	Keynote 9	Fluorescence Imagaing Course (Organized by KARL STORZ Endoscopy Japan)
		→ Page 9	
		Keynote 10	
	→ Page 7	→ Page 9	
	Keynote 5	Keynote 11	
	→ Page 7	→ Page 9	
	Lunch Break (Room 101 Exhibition Area) / Lunch Symposium (3F Banquet Hall & 4F VIP Room)		
	Symposium 11: Endometriosis	Symposium 13: Robotic Surgery	Symposium 17: General/Benign
	→ Page 33	→ Page 36	→ Page 39
	Symposium 12: Endometriosis	Symposium 14: Robotic Surgery	PG Workshop: Hysteroscopy (Organized by KARL STORZ)
	→ Page 34	→ Page 37	
	Break (Exhibition Area)		
	Medical Law & Ethics Forum	Symposium 15: Robotic Surgery	PG Workshop: Hysteroscopy (Organized by KARL STORZ)
		→ Page 37	
		Symposium 16: Myoma	
	→ Page 35	→ Page 38	
	Transportation Service available at the Lobby		
	Gala Dinner (Taipei Marriott Hotel) Pre-registration Required		

Postgraduate Workshops
APAGE Fellow, Oral Presentations, Video Session, Young APAGE Group
Miscellaneous

Lunch Symposium 2

INVITED SPEECH

LM & SINGLE PORT LAVH BY 3D: TAIWANESE EXPERIENCE

YI-JEN CHEN
Department of Gynecologic Oncology, Taipei Veterans General Hospital, Taiwan

INVITED SPEECH

IN ANSWER TO THE QUESTION, MY CHOICE WOULD BE 4K

MITSURU SHIOTA
Department of Gynecologic Oncology, Kawasaki Medical School. Japan

Lunch Symposium 3

INVITED SPEECH

DOES HYSTEROSCOPY PRIOR TO IVF IMPROVES OUTCOME?

RUDI CAMPO
Leuven Institute for Fertility and Embryology, Belgium

INVITED SPEECH

ADVANCEMENT IN FLUORESCENCE IMAGING

ALESSANDRO BUDA
San Gerardo Hospital, University of Milano-Bicocca, Italy

Cross-Strait Forum 4

INVITED SPEECH

OUTCOMES OF LAPAROSCOPIC SACROCOLPOPEXY FOR PELVIC ORGAN PROLAPSE

LIN ZHU
The Second Hospital of Shandong University, China

ABSTRACT:
目的：探討腹腔鏡骶骨固定術（LSC）的臨床療效及安全性。
方法：選擇 2012 年 1 月至 2015 年 06 月在山東大學第二醫院因“子宮 / 陰道穹窿脫垂伴不同程度陰道壁脫垂”行 LSC 手術的 204 例患者為研究物件。病例選擇標準：以中盆腔缺陷為主的 POP（≥POP-QIII 度）；有症狀的陰道穹隆脫垂（≥POP-Q II 度）；POP 術後陰道頂端復發（有症狀，且 ≥POP-Q II 度）。排除手術禁忌；保留子宮的患者應除外宮頸和子宮內膜病變。手術方式分為腹腔鏡下子宮 + 雙附件切除術 + 陰道骶骨固定術（144 例），腹腔鏡下陰道骶骨固定術（33 例）和腹腔鏡下子宮骶骨固定術（27 例）。合併壓力性尿失禁患者術中同時行 burch 手術。術後跟蹤隨訪，通過盆腔器官脫垂定量 (POP-Q) 分期評價解剖學療效；通過盆底功能障礙性疾病症狀問卷（PFDI-20），盆底疾病生活品質影響問卷簡表（PFIQ-7) 評價患者的盆底功能情況，通過得分變化來評價功能學療效；通過性生活品質問卷 (PISQ-12) 評價患者的性生活狀況，通過得分變化來評價性生活品質改善情況。
結果 :1.204 例患者術後客觀治癒率約為 98.53%，主觀治癒率為 100%；術後功能學療效與術前相比差異具有統計學意義（P<0.05）。2. 手術近期併發症 11 例，3 例患者術後出現尿瀦留，1 例患者出現下腹墜痛感，2 例患者出現下肢疼痛，2 例患者術後出現下肢靜脈血栓形成，3 例患者術後出現發熱，對症處理後均好轉出院。遠期併發症 17 例 ,5 例術前無尿失禁症狀的患者術後出現新發下尿路症狀，表現為不同程度的尿頻、尿急、小便淋漓，其中 2 例患者表現為輕度混合型尿失禁；4 例患者術後有性生活不適表現，查體未見明顯陰道攣縮及其他病變；3 例患者術後出現大便困難、頻繁便秘的表現；3 例患者在術後不同時間右出現以腰骶部疼痛為主的慢性盆腔疼痛；1 例患者術後出現網片暴露。
結論：腹腔鏡骶骨固定術恢復脫垂臟器解剖位置理想，能夠保留足夠的陰道長度及容納度，近期治癒率高，療效肯定，術式安全，併發症少。

INVITED SPEECH

LAPAROSCOPIC VESICOVAGINAL FISTULA REPAIR

YUQIN LI
Xiamen Chang Gung Hospital, China

ABSTRACT:
Vesicovaginal fistula (VVF) is still a major cause for concern in many developing countries. It represents a significant morbidity

in female urology. Continual wetness,odor, and discomfort cause serious social problems. Treatment of patients with VVF must embrace their immediate
and, in most cases, subsequent surgical management. Surgical repairs of VVF are most commonly performed: vaginally, abdominally, and laparoscopically. The method of closure depends on the surgeon's training and experience.Laparoscopic extravesical VVF repair is a safe, effective, minimally invasive technique with excellent cure rates in an experienced surgeon's hands. Adjuvant techniques are needed for
complex fistulas.

INVITED SPEECH

UPPER ABDOMINAL LAPAROSCOPIC SURGERY FOR OVARIAN CANCER: SURGICAL TECHNIQUES AND CHALLENGES

JIANQING HOU

Cross-Strait Forum 5

INVITED SPEECH

THE MEDICAL TREATMENT OF ADENOMYOSIS: WHY IS IT SO HARD?

SUNWEI GUO
The Obstetrics & Gynecology Hospital of Fudan University, China

ABSTRACT:
Adenomyosis is a common gynecologic disorder with poorly understood pathogenesis and pathophysiology. Besides a soft and diffusely enlarged uterus, its symptoms include dysmenorrhea, heavy menstrual bleeding, and subfertility. Treatment of adenomyosis is challenging, with hysterectomy being the treatment of choice. Although the disease is hormone-sensitive, progestogenic agents are not very effective, and the efficacy of GnRH agonists is restricted by their short duration. In addition, the symptoms often recur after discontinuation of GnRH agonists therapy. Thus, adenomyosis appears to defy non-surgical medical treatment. However, why this is so unclear.

Traditionally, adenomyosis is viewed, first and foremost, as hormonal diseases, featuring increased local production of estrogens due to molecular aberrations in steroidogenesis. It is also conceptualized as pelvic inflammatory conditions, characterized by increased production of pro-inflammatory cytokines and chemokines. It turns out that inflammation and coagulation—long regarded as two separate entities---are two major host-defense systems that interact with each other. In fact, the two entities are intricately entwined: inflammation activates the coagulation cascade and coagulation modulates the inflammatory. Taking cues from the cyclic bleeding of ectopic endometrium and the finding that activated platelets play a critical role in initiating inflammation, it was reasoned that platelets must be involved in adenomyosis. In this talk, I shall provide data that demonstrate platelets play critical roles in the development of adenomyosis. In addition, women with adenomyosis appear to be in a hypercoagulable state. Not only platelets drive smooth muscle metaplasia and ultimately fibrosis in adenomyosis, ectopic endometrium also secrete coagulant factors. Hence, lesions of ectopic endometrium and platelets engage active cross-talks, promoting the development of adenomyosis and resulting in enlarged uterus, heightened uterine contractility and pain. Anti-coagulation therapy appears to be efficacious in treating adenomyosis in mouse, and many promising drugs tested pre-clinically turned out to be either anti-platelet or anti-thrombotic. The view of platelet-driven epithelial-mesenchymal transition and fibroblast-to-myhofibroblast transdifferentiation can help to illuminate the natural history of adenomyosis and provide an answer as why adenomyosis seemingly defies medical treatment. This view also has important and immediate implications in the identification of novel biomarkers for adenomyosis and in devising novel therapeutics.

INVITED SPEECH

APPLICATION OF HIGH INTENSITY FOCUSED ULTRASOUND (HIFU) IN ADENOMYOSIS

XIUPING LYU
Affiliated Hospital of Weifang Medical University, China

INVITED SPEECH

SELECTION OF TREATMENT FOR PELVIC FACTOR INFERTILITY

YANGUO WANG
淄博市臨淄區婦幼保健院 , China

Endometriosis Session

INVITED SPEECH

EFFICACY AND SAFETY OF LAPAROSCOPIC SURGERY FOR PELVIC ENDOMETRIOSIS

MARI KITADE
Juntendo University, Japan

ABSTRACT:
OBJECTIVE: To evaluate the efficacy of laparoscopic surgery for patients with endometorioma and Deep infiltrating endometoriosis (DIE) in various pain and infertility.

MEASUREMENTS: The change of symptoms and pregnancy rate after surgery were investigated for 377 women with

endometrioma and 51 women with Deep infiltrating endometoriosis (DIE) who performed laparoscopic surgery. Surgical tecniques were demonstrated on VTR.
【surgical method】endometrioma: After aspirating the contents of endometrioma, para-ovarian adhesions are dissected completely. The capsule of the endometrioma is removed gently and ovary is re-approximated by gathering suture with absorbable thread.
DIE: retroperitoneum cavity is opened and connective tissue surround of retro-peritoneal vessels is dissected to identify the ureter. Next, severe rectal adhesion to the uterus caused by DIE is dissected to open the Cul-de –Sac with a monopolar needle and a scissors forceps carefully. Then, the fibrous tissue of deep endmetoriosis is resected, and para-rectal space is opened with careful dissection.

MAIN RESULT: Endometrioma: The recurrence rate after laparoscopic cystectomy (LC) for endometrioma was 30.8% (116/377) and 5.9% of recurrence patients (7/116) needed to perform secondary laparoscopic surgery. 42 infertile patients (40.3%) have conceived postoperatively.
DIE: The visual analog scale (VAS) of dysmenorrhea was significantly decreased after surgery (7.7±3.2 → 2.4±1.4). The effectiveness for dysmenorrhea have continued more than 2 years. The pregnancy rate after surgery was 36.0%.

CONCLUSION: It was figured out that laparoscopic surgery was effective for infertility and dysmenorrhea on patients with pelvic endometriosis. But there are some recurrence cases after surgery, so the timing for surgery should be decided strictly.

INVITED SPEECH

CURRENT PRACTICE AND CHALLENGES IN TREATING ENDOMETRIOSIS

HSIEN-MING WU
Linkou Chang Gung Memorial Hospital, Taiwan

ABSTRACT:

Endometriosis is an estrogen-dependent condition characterized by the growth of endometrial epithelial and stromal cells outside the uterine cavity and is often accompanied by chronic pelvic pain, and subfertility. It occurs in 10% of women of reproductive age and up to 50% of women with infertility and represents a significant burden on the health care system. Although a number of theories have been proposed, the most widely accepted is the Sampson theory of transplantation where menstrual tissue, including viable endometrial epithelial and stromal cells, enter the peritoneal cavity via retrograde menstruation. Once present, an innate or acquired characteristic of these endometrial cells and the inflammatory and hormonal microenvironment combine to facilitate lesion growth at multiple locations throughout the peritoneal cavity. There is significant heterogeneity in the histopathological appearance of the disease. The surgical findings are widely classified according to the revised American Fertility Society (rAFS) despite this having very poor correlation with postoperative outcomes, and clinical symptoms. The diagnostic markers and management must provide consistent results among a varied geographical and ethnically varied population. Therefore, it is a big challenge of defining the diagnostic markers and management in treating endometriosis.

INVITED SPEECH

BASIC RESEARCH ON ENDOMETRIOSIS

KAEI NASU
Division of Obstetrics and Gynecology, Support System for Community Medicine, Faculty of Medicine, Oita University, Oita, Japan

ABSTRACT:

Accumulating evidence suggests that epigenetic aberrations play definite roles in the pathogenesis of endometriosis. MicroRNAs (miRNAs) are a recently defined class of epigenetic mechanism, which is characterized as endogenous, small size, single stranded, non-coding RNA. The purpose of this study is to identify the panel of miRNAs that were aberrantly expressed in primary cultured human endometriotic cyst stromal cells (ECSCs) in comparison with primary cultured normal endometrial stromal cells (NESCs), and evaluate the roles of aberrantly expressed miRNAs in the pathogenesis of endometriosis.

ECSCs and NESCs were isolated from ovarian endometriotic tissues and the eutopic endometrial tissues, respectively. Aberrantly expressed miRNAs in ECSCs were identified by a global miRNA microarray analysis. Thereafter, the roles of aberrantly expressed miRNAs regarding the pathogenesis of endometriosis were evaluated by compulsory miRNA expression techniques.
miRNA microarray analysis identified 8 downregulated miRNAs (miR-29b, miR-196b, miR-199a-3p, miR-199b-5p, miR-214, miR-424, miR-455-3p, and miR-503) and 4 upregulated miRNAs (miR-100, miR-132*, miR-181a, and miR-210) in ECSCs. Compulsory expression of miR-196b directed the inhibition of cell proliferation and the induction of apoptosis in ECSCs. miR-503 transfection into ECSCs also induced the cell-cycle arrest at G0/G1 phase and apoptosis, inhibited the cell proliferation, vascular endothelial cell growth factor (VEGF)-A expression and ECM contractility. miR-196b was found to suppress the mRNA expression of c-myc and B-cell lymphoma/leukemia-2 (Bcl-2) in ECSCs. Cyclin D1, Bcl-2, VEGF-A, Ras homology (Rho) A, and Rho-associated coiled-coil-forming protein kinases were considered as the downstream target molecules of miR-503. Both miR-196b and miR-503 genes were hypermethylated in ECSCs and the treatment with a DNA demethylating agent restored the expression of these miRNAs in ECSCs. The compulsory expression of miR-210 resulted in the induction of cell proliferation, the production of VEGF-A, and the inhibition of apoptosis through signal tranducer and activator of transcription 3 (STAT3) activation in NESCs.

The present findings suggested that aberrant miRNA expressions play important roles in the pathogenesis of endometriosis as a part of epigenetic mechanisms. Further studies on the repertoire of dysregulated miRNAs, interacting miRNA-target mRNA associations, and the regulation and action mechanisms of miRNA may provide useful information on the pathogenesis and novel treatments of endometriosis.

INVITED SPEECH

HORMONE REPLACEMENT THERAPY IN WOMEN WITH PAST HISTORY OF ENDOMETRIOSIS

YUNG-CHIEH TSAI
Depart.of Ob/Gyn, Chi Mei Medical Center, Taiwan

ABSTRACT:
Endometriosis is a common clinical condition and its treatment will often lead to early menopause, resulting in severe menopausal symptoms and an increased risk of osteoporosis. These women are therefore candidates for menopausal hormone therapy (MHT). However, hormone replacement therapy is not without risk in these women. Since estrogens stimulate endometriosis, MHT may reactivate endometriosis and increase the risk of recurrence or de novo occurrence of endometriosis. Also, treatment with unopposed estrogen is associated with an increased incidence of both endometrial hyperplasia and endometrial carcinoma in the uterus. As endometriosis is composed largely of ectopic endometrioid tissue, this implies it may be sensitive to reactivation or malignant transformation if exposed to estrogen.
Continuous combined estrogen – progestogen therapies or tibolone have been proposed in women with or without a history of hysterectomy in order to reduce the risk of endometriosis-related pain recurrence.
For those who reached menopause at young, the benefit may outweigh the risks. For women with significant, residual endometriosis lesions the risk / benefi t balance will depend on the severity of the symptoms.Patients and clinicians should discuss the risks and limitations of the data thoroughly before deciding on a particular treatment regimen.

Symposium 1
Morcellation

INVITED SPEECH

NON-MALIGNANT SEQUELAE OF UNCONFINED MORCELLATION AT LAPAROSCOPIC HYSTERECTOMY OR MYOMECTOMY

TOGAS TULANDI
McGill University, Canada

ABSTRACT:
In 2014, the Federal Drug and Administration (FDA) issued a statement discouraging the use of laparoscopic morcellator because “it poses a risk of unsuspected cancerous tissue, notably uterine sarcomas, beyond the uterus”. While the discussion thus far has focused on risk of disseminating malignancy with morcellation, the risk of other non-malignant complications secondary to morcellation have not been addressed. We recently reported that laparoscopic hysterectomy or myomectomy with unconfined morcellation is associated with the risk of iatrogenic endometriosis (1.4%), adenomyosis (0.57%), parasitic myoma (0.9%), and rarely disseminated peritoneal leiomyomatosis. Benign sequelae of uterine or myoma morcellation could be found in up to 1% of cases. This is much higher than the prevalence of uterine sarcoma after morcellation. Benign conditions have less consequences than malignancy, yet they are more common and might require another operation. Accordingly, if morcellation is required, confined-morcellation should be considered. In this presentation, a video of confined morcellation will be demonstrated.

INVITED SPEECH

TECHNIQUES OF CONTAINED MORCELLATION OF LM

BERNARD CHERN
The Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy, Singapore

INVITED SPEECH

MORCELLATION HAS TIPPED THE BALANCE OF LAPAROSCOPIC SUBTOTAL HYSTERECTOMY VS TOTAL HYSTERECTOMY

KEEN WHYE LEE
Obstetrical & Gynaecological Society of Singapore, Singapore

ABSTRACT:
Historically, subtotal hysterectomy is a safer and easier surgery for benign uterine diseases than total hysterectomy.
Furthermore, with the introduction of laparoscopic approach, subtotal hysterectomy is even more suitable to teach beginners or cases with pelvic adhesions, to avoid many of the inherent risks of ureteric, bladder and bowel complications.
The recent uproar regarding the use of morcellation for fibroids and uterus may further discourage the use of subtotal hysterectomy in benign gynaecology.

Symposium 2
Hysteroscopy & LESS/NOTES

INVITED SPEECH

STATE OF THE ART IN OFFICE HYSTEROSCOPY

STEFANO BETTOCCHI
University of Bari, Italy

INVITED SPEECH

LIMITATION OF HYSTEROSCOPIC MYOMECTOMY

YASUYOSHI HAYASHI
Japan Society of Gynecologic and Obstetric Endoscopy, Japan

ABSTRACT:
What is the Limitation of a Hysteroscopic Myomectomy Submucous myoma frequently causes menorrhagia and metrorrhagia, and sometimes might result in infertility, is one of the most troubling problems in clinical gynecology. So far, the hysteroscopic myomectomy has been regarded as the standard procedure in treating some of these myomas. However, the degree of myoma protrusion into the uterine cavity as well as the myoma size determine the feasibility of this procedure. In the cases of broad-based, deeply invaded submucous myoma, also termed a sessile myoma, it is rather difficult to remove the myoma completely in a one-step hysteroscopic procedure. A two-step method is usually employed. During hysteroscopic evaluation, the submucous myoma with an intracavitary protrusion less than 50% may be pushed into the muscular layer completely due to the increased intrauterine pressure used by the irrigating fluid. This kind of myoma, which we term a sinking submucous myoma, makes the hysteroscopic myomectomy difficult or even impossible. From January 1985 to June 2016, I performed a total of 5,009 cases of resectoscopic myomectomy. Of which 1700 cases were sessile myoma and 3309 cases were pedunculated myoma. A. Indications for our hysteroscopic myomectomy are as follows. 1) Uterine size ≦ 12 weeks'gestational size; cavity length <12 cm. 2) The largest diameter of the myoma <60 mm (if intrauterine protrusion >50%). 3.) The largest diameter of the myoma <50 mm (if intrauterine protrusion <50%). 4) Symptomatic intramural myoma ≦ 30 mm in diameter. 5) Serosa-myoma thickness (SMT) ≧ 5 mm. 6.) No existence of uterine malignancy B. Preoperative evaluation 1) Diagnostic hysteroscopy is performed to confirm the location and the degree of intrauterine myoma protrusion. 2) Abdominal ultrasound is done to check size of the myoma and the uterus. 3) Sonohysterography Vaginal ultrasonography immediately after hysteroscopic examination is performed. Due to the retained irrigating fluid, the fibroid can be watched clearly. The size of the fibroid and the serosa myoma thickness (SMT) can be estimated. 4)MRI if necessary. C. Instruments 1) Lin Myoma Grasper Ten different types of Lin myoma graspers were developed since 1996. These forceps enabled a quick and safe operation. Sessile type submucou myoma and even some intramural myoma can be removed in a one-step procedure. 2) Lin dissecting loop 3) Lin Curved Tenaculum, these instruments enabled easy and comfortable operations. 4)Lin self - retainer for holding the abdominal ultrasound probe. D. Operative methods 1) A Lin dissecting loop equipped in a 7 mm resectoscope is used to cut into the cleavage between the myoma and the myometrium. The myoma is dissected from the muscle layer using a Lin dissecting loop and the tip of the scope. 2) A Lin myoma grasper is used to extract the myoma into the intrauterine cavity. 3) A conventional cutting loop is used to cut and to divide the myoma. 4) Myoma is removed by a Lin myoma grasper. All of these procedures are monitored by a concomitant ultrasound. E. Results: The specimens weighed from 0.1 to 800g (mean 21.2±27.6 g in 4,943cases) and the operating time ranged from 2 to 150 minutes (mean 29.3±18.4 min in 5,003 cases). One emergent hysterectomy was done because of the uterine inversion after removal of an 800 g myoma. Eleven cases of uterine perforation were encountered. Almost of the patients had improvement of the symptoms. The long term follow up revealed 53 cases of ATH, 25 cases of abdominal or laparoscopic myomectomy and 113 cases of Re-TCR · Two hundred and ninety two women had full-term deliveries (NSD 199 cases and C/S 93 cases). No uterine rupture was encountered before or during the delivery. F. Conclusions: Our recent operative technique can 1) preserve more endometrium 2) cause less injury to the muscle layer 3) prevent uterine perforation 4) enhance a complete one-step removal of the myoma. We conclude that in order to perform a safe and efficient hysteroscopic myomectomy, the operator needs to make his own limitation of the surgery according to his own skill.

INVITED SPEECH

SINGLE INCISION LAPAROSCOPIC SURGERY-STEPS TO MASTERY

CHONG KIAT KHOO
KK Women's & Children's Hospital, Singapore

Symposium 3
Hysteroscopy & LESS/NOTES

INVITED SPEECH

HYSTEROSCOPY: FROM EVOLUTION TO REVOLUTION

OSAMA SHAWKI
Department of Gynecology, Cairo university, Egypt

ABSTRACT:
Hysteroscopy was born in 1869 rooted in the work of Pantaleoni. It has undergone numerous evolutions; first passing through an era of CO2 insufflation, followed by fluid distention. Development on hysteroscopy equipment did not provide the satisfactory intrauterine view. That explains the fact of discrepancy between huge and rapid development in laparoscopic surgery compared to Hysteroscopy.
Also design of many hysteroscopy sheathes has inherent limitations to deliver proper distention and hence collapsed cavity view occur. Issue of limitations of intrauterine pressure stood as myth and taboo. Unnecessary fear of high pressure resulted in unsatisfactory collapsed view and difficult intrauterine surgery.
My concept and design of higher pressure fluid delivery system proved an absolutely safe practice. Crystal clear images produced by a combination of adequate fluid pressure, continuous irrigation and expert surgical skill has now facilitated the ushering in of the era of intra-uterine surgery.
Vaginoscopy was first coined by Dr. Stefano Bettochi in 1997 but has been described as far back as the 1950s. Vaginoscopy in the classic paper describe direct insertion of Hysteroscope through vagina without speculum. From that perspective, I see the term Vaginoscopy is incorrect as term Vaginoscopy means

endoscopic examination of vagina!
My new technique of Vaginoscopy entails endoscopic examination of the vagina using the hysteroscopy lens, thus extending the applications of office hysteroscopy. Vaginoscopy can explore many vaginal findings like different types of infection, spots of endometriosis, foreign bodies and deep-seated recto-vaginal endometriosis. The values are countless and include both diagnostic and therapeutic elements. Once you have mastered visibility, any pathology from the vagina up to the uterine fundus can be seen and dealt with as necessary.

INVITED SPEECH

HYSTEROSCOPIC MANAGEMENT OF CESAREAN SCAR DEFECT

LUIS ALONSO
Endoscopy Unit, Centro Gutenberg. Málaga, Spain

ABSTRACT:

The cesarean delivery rate has been raising non-stop for over 3 decades worldwide. The healing process of the cesarean section scar can be incomplete. In that situation, there is a disruption of the myometrium at the site of the uterine scar. This “gap” in the anterior lower uterine segment receives different names, being the terms “niche” or isthmocele the most commonly used. The estimated incidence of cesarean scar defect (CSD) ranges between 24% to 56%. This incidence varies considerably depending on the reports. This is due to variation on definitions and the differences in the methods used for the diagnosis of the defect. There is a clear relationship between the anatomic defect and the presence of different degrees of postmenstrual bleeding and other gynecological symptoms such as dysmenorrhea, chronic pelvic pain and infertility. The diagnosis of this condition is based in the clinical symptoms, ultrasound evaluation and hysteroscopy. There is a high correlation between transvaginal ultrasound and hysteroscopy in the diagnosis of CSD.

Different treatments have been proposed. Medical therapy with the use of oral contraceptives to reduce menstrual blood, hysteroscopy surgery to facilitate the drainage of blood and to reduce the local production and laparoscopic or vaginal surgery to correct the defect. Multiple articles have been published about the use of the resectoscope in the treatment of a CSD. It is important to realize a resection of the fibrotic tissue of the inferior part of the scar to facilitate the drainage of the menstrual blood collected in the scar, improving in this way the postmenstrual bleeding. Diagnosis, treatment, complications and results of this technique are analized in this presentation.

INVITED SPEECH

SINGLE PORT HYSTERECTOMY: ROBOT VS LAPAROSCOPY

FATIH SENDAG
Acıbadem University, Turkey

ABSTRACT:

Adoption of robotic technology in gynecology has been widely popularized as it provides considerable advantages over standard techniques, including improved instrument dexterity, three-dimensional high-definition optics, and enhanced ergonomics. These features have facilitated the adaptation of robotics for laparoendoscopic single-site surgery (LESS) to overcome challenges with clashing, suturing, and intra-abdominal triangulation. R-LESS is technically feasible and the benefits of robotic surgery eliminate many of the challenges seen with conventional LESS.

Symposium 4
Obstetrics

INVITED SPEECH

PREGNANCY AFTER LAPAROSCOPIC MYOMECTOMY

MITSURU SHIOTA
Department of Gynecologic Oncology, Kawasaki Medical School, Japan

INVITED SPEECH

LAPAROSCOPIC SURGERY DURING PREGNANCY

YI-JEN CHEN
Department of Obstetrics and Gynecology, Taipei Veterans General Hospital, Taiwan

INVITED SPEECH

UTERINE TUMOR DURING PREGNANCY

CHANG-CHING YEH
Department of Obstetrics and Gynecology, Taipei Veterans General Hospital, Taiwan

ABSTRACT:

The management of ovarian tumors during pregnancy can be challenging because of the risk of fetal wastage and the possibility of surgery-related complications, or a delayed diagnosis of a possibly lethal disease or malignancy. Surgical intervention during pregnancy was considered safe, especially in second trimester. Neither surgical approach, such as exploratory laparotomy or laparoscopic surgery, nor anesthesia methods, for example general anesthesia or spinal anesthesia showed negative impact on the pregnancy outcomes. Since reported cases of malignant ovarian tumor are still rare, thus, the possibility of metastatic tumor should be considered first.

Symposium 5
Hysterectomy

INVITED SPEECH

LAPAROSCOPIC HYSTERECTOMY FOR LARGE UTERUS: TECHNICAL MINUTE

RAJENDRA SANKPAL
Indian Association of Gynaecoligcal Endoscpists, Indonesia

ABSTRACT:
Since the inception of technique of laparoscopic hysterectomy in 1989 the steps of laparoscopic hysterectomy are almost same. There is wide change in selection of patients and indications. Earlier gynaecologists would restrict the surgery to normal or just bulky uterus. Due to advancement of technic, refinement of steps of the surgery, availability of good equipments laparoscopic surgeon is geared to perform more complicated laparoscopic hysterectomies. Gynaecologists desire to perform laparoscopic hysterectomies for large uteri. In this way there is likely possibility of increment in complications especially in the hands of novice surgeon. There is a need to develop a uniform method to deal with laparoscopic removal of large uterus which would be simple, safe, economical and easily reproducible. With our rxperience of more than 22 years we describe a simplified safe and economical methodology for laparoscopic hysterectomy in large uterus using Dr Sankpal's Modified Uterine manipulator, a good bipolar forceps and minimal hand instruments. For a successful surgical outcome we believe that one must pay attention to ergonomics of operation theatre, theatre set up and detailed knowledge of equipments and instruments used for surgery.

INVITED SPEECH

HOW TO PREVENT VAGINAL VAULT DEHISCENCE IN TLH

AMPHAN CHALERMCHOKCHAROENKIT
Thai Society of Gynecologic Endoscopists, Thailand

ABSTRACT:
The trends of Laparoscopic hysterectomy in many institutes shift from laparoscopically assisted vaginal hysterectomy (LAVH) to total laparoscopic hysterectomy (TLH). Unfortunately, the increased adoption of TLH has also been accompanied by a corresponding rise in the rate and types of complications in many reports. Vaginal vault dehiscence is one of TLH-related complications that was more frequently found in this decade. It can represent an extremely serious post-operative complication. Recent studies suggested that the rate of this vaginal vault complications is heavily influenced by TLH processing and modality of vaginal cuff closure. Many kinds of interventions developed in our institution aimed to reduce this complication.

INVITED SPEECH

TOTAL LAPAROSCOPIC HYSTERECTOMY IN PATIENTS WITH PREVIOUS CAESAREAN SECTION: TIPS AND TRICKS

PRASHANT MANGESHIKAR
Center for Gynecological Endoscopic Surgery and Institute for Research and Training in Minimally Invasive Surgery, Mumbai, India

Symposium 6
Urology

INVITED SPEECH

RECONSTRUCTIVE LAPAROSCOPIC PROLAPSE SURGERY TO AVOID VAGINAL MESH EROSIONS

RAJESH DEVASSY
Dubai London Specialty Hospital, Dubai, United Arab Emirates

ABSTRACT:
1. A Spectre of The cascade in the formulation of and appropriate most efficient method for the contained power morcellation within an endo bag used for uterine specimen removal during Laparoscopic Myomectomy and Hysterectomy.

2. The efficacy of the purely laparoscopic reconstructive management of cystocele and rectocele with mesh, to avoid the risk of erosion by the graft material, a well-known complication in vaginal mesh surgery.

3. The Feasibility and the clinical outcome and reduced rate of complications of laparoscopic Radical Hysterectomy in women with Uterine cancer and to compare surgical outcome and postoperative early adjuvant Therapy.

4. The advantages, functional capabilities and quality of life after Supra cervical Hysterectromy in Benign pathology.

INVITED SPEECH

LAPAROSCOPIC APPROACH TO ANTERIOR COMPARTMENT PROLAPSE-CURRENT STATE OF PLAY

ROBERT O'SHEA
ISGE, Australia

ABSTRACT:

Surgery for vaginal prolapse is currently in a major crisis. Over recent years, vaginal mesh has been used extensively in an effort to improve success rates for surgery. Unfortunately, due to the recent FDA warnings and widespread medical legal action emanating from the USA, the use of mesh in vaginal surgery has reduced dramatically.
Paravaginal repair for anterior compartment prolapse has not been used widely over the years. The laparoscopic approach has proved difficult technically. However, as our options for treatment of anterior compartment prolapse have narrowed with the mesh crisis, paravaginal repair has once again become a viable option. The laparoscopic approach has produced good medium to long-term success rates. The increasing popularity of robotic surgery may bring this procedure within the reach of substantially more gynaecologists. In our hands, laparoscopic paravaginal repair for anterior compartment prolapse has achieved success rates of approximately 70% using Ba>0 and reoperation rates as success criteria.

We advocate that Laparoscopic Paravaginal Repair be considered as a viable option in anterior vaginal prolapse.

INVITED SPEECH

LAPAROSCOPIC GYNECOLOGY SURGERY

AUN KORN
Calmette Hospital, Cambodia

ABSTRACT:

GENERALITY: Hysterectomy for benign disease is one of the most common procedures in surgery in Cambodia particularly to Calmette. With 2 years of backward, in our service, 93% of the hysterectomy are performed by laparotomy and 7% laparoscopy.

The advantages of laparoscopic surgery in gynecology
Laparoscopic surgery in Gynecology present many advantages such as less trauma and decrease of the operating time, shortening and simplification of the surgical post-op, lower overall cost, benefit medical and economic. It has aesthetic superiority, a low rate of infections and abscesses in wall, low rate of morbidity, not much of consumption of antibiotque, pain post-op, a shortening of the time of hospitalization and return to normal activities

The modalities of hysterectomy in Calmette hospital
- Abdominal hysterectomy (79%...?)
- Vaginal hysterectomy (23%...?)
- Vaginal hysterectomy with laparoscopic assistance (2%?)
- Laparoscopic hysterectomy (8.2%)

DEFINITION AND MODALITY: No consensual definition of hysterectomy laparoscopic, indeed, according to the teams and surgeons, vaginal hysterectomy with laparoscopic assisted and laparoscopic hysterectomy are overlapping.

CLASSIFICATION: In our gynecological ward, 5 types of interventions carry out by laparoscopic way:
- Type 0: laparoscopy diagnostic possible simple and adhesiolysis before hysterectomy vaginally.
- Type 1: hemostasis and section of the round ligaments and pedicles annexiels. This type corresponds to vaginal hysterectomy laparoscopic-assisted
Type 2: type 1 with vesico-uterine detachment and hemostasis of the uterine pedicles.
- Type 3: type 2 associate with intrafasciale dissection, hemostasis of the pedicles cervico-vaginal dissection associated with opening the vaginal and then suturing.
- Type 4: type 3 with closing the vaginal by laparoscopic way.

INDICATION:
• Symptomatic uterus fibroma : 40%?
• Endometriosis
• Myomectomy
• Bleeding myoma intracavity
• Fibroid pathology

HISTORY:
- In 1984: Semm, first access laparoscopic-assisted hysterectomy vaginal
- January 1, 1988, Reich, first hysterectomy entirely by laparoscopy
- In November 1989, team Clermont-Ferrand, first total hysterectomy enlarged by laparoscopy.
- During the 1990s, the laparoscopic hysterectomy wellknow, the evolution notable, due to the improvement of all material and systemization of the various techniques and operating time
- On June 22, 2001 Professor Yit Sunnarong with team MEDECIN DU MONDE was the first to open new horizons in diagnostic exploration, surgery laparoscopic Gynecology in the Calmette hospital Phnom Penh, Cambodia.
- June 17, 2011, Dr.Keo Muoy Sroy and his team conducted the laparoscopic surgery in Gynecology at NMCHC, Phnom Penh, Cambodia.
- In February 2012, our team of gynaecology at Calmette, realizes the access laparoscopic-assisted hysterectomy vaginally.
- 2013, at Calmette hospital, carried out total hysterectomy with lymph nodes dissection.

Nowadays, we considered the laparoscopic hysterectomy is one surgical technic was maturity and it was reproductible done and feasible, available in our hospital.

THE TECHNIC OF HYSTERECTOMY: The patient under the diet, Laparoscopic will be done under general anesthesia in the position of dorsal decubitus modified with ecarted legs and a bit flexions 30o, the two arms paralleled along the body, the bladder was cathetered drainaged. The endoscopic material and instrumentation were classified and the uterin canulation was setting up.

Symposium 7
General/Benign

INVITED SPEECH

TOWARDS REDUCED, SMALLER AND HIDDEN ACCESS PORTS IN MINIMALLY INVASIVE GYNAECOLOGY-PERSONAL EXPERIENCE

FELIX WONG
University of New South Wales, Australia

ABSTRACT:

Traditional laparoscopic surgery involves the uses of 3-4 operative ports. Many ports are of larger sizes to 10 – 15 mm in diameter. With increasing demands of more cosmesis, with experience gained and instrumentations improved, many gynaecological surgeries can now be performed with reduced ports and even single port or single site approach. Although the single port laparoscopic surgical approach has been increasingly popular among some surgeons, it is costly with new modified instruments and also associated with inherent surgical technical difficulties, like instruments' clashing due to crowding and sword fighting. Depending on the pathology and indications of surgery, the speaker presented his personal development of advanced laparoscopic gynaecological surgery with reduced ports and hidden scars approach. For those common uncomplicated gynaecological surgeries, only two or three 5 mm ports at the umbilicus were employed to perform these procedures including a simple LAVH. The use of an additional 3-5 mm port at the left lower abdominal quadrant or just above the pubic hair will offer hidden scar appearance of this surgeries. Thus producing very satisfactory cosmetic result as shown in this presentation. Two technical methods are often adopted in this surgical approach for ovarian tumour/cyst and uterine fibroids. They are the enlargement of a 5 mm port to 10-11 mm port at the umbilical port for the introduction of a specimen bag in ovarian cystectomy or oophorectomy or the insertion of an electric morcellator for uterine fibroids. Surgical suturing assisted with a small port at the left lower abdominal quadrant is comparatively easy compared to the single port suturing. The speaker will share his techniques and experience with the audiences and these approaches will be described in detail with video demonstration at the lecture.

INVITED SPEECH

THE ENDOSCOPIC SURGICAL SKILL QUALIFICATION SYSTEM IN GYNECOLOGIC ENDOSCOPY

TOSHIYUKI TAKESHITA
Japan Society of Gynecologic and Obstetric Endoscopy and Minimally Invasive Therapy, Japan

ABSTRACT:

The Japan Society of Gynecologic and Obstetric Endoscopy has established the Endoscopic Surgical Skill Qualification System since 2002. Applicant skill is assessed on the unedited videos according to the guidelines of the Committee. This system may facilitate improvement in surgical technique and safety in gynecologic endoscopic surgery in Japan.

INVITED SPEECH

DAY CARE MINIMAL ACCESS SURGERY CONCEPT IN KENYA

YAMAL PATEL
ISGE, Kenya

ABSTRACT:

INTRODUCTION: The advantages of laparoscopy are known to all since the onset of MAS in early 21st century. Since the onset, laparoscopic procedures, both in gynecology and in surgery, have been promoted in ever increasing numbers. The question of "What can be done laparoscopically?" is soon going to be outdated as this technology covers almost all fields and scopes of surgery nowadays, with very few remaining contraindications.

The question now thus is "Which cases can successfully now be made as day care procedures?" and which hospitals and surgeons should perform these. With this step, we can increase the efficiency and the cost-effectiveness of the procedure but patient safety must always be in focus.

METHOD: A retrospective cohort study was carried out and data collected of patients operated at a daycare centre (ICMAS), estimated blood loss, duration of surgery, rate of complications, average hospital stay, re-admission rates, and re-operation rates.

CONCLUSION: This preliminary data shows that daycare minimal access surgery is feasible even in developing countries safety. With advancements in anesthesia and surgical techniques and techniques and experience along with patient awareness, daycare can be developed as a modern day surgery with the concept of "Hospital of the future." We discuss our protocol for daycare surgery in this unit.

Symposium 8
General/Benign

INVITED SPEECH

SAFETY 1ST TROCER APPROACH IN LAPAROSCOPIC SURGERY

TSUYOSHI OTA
Juntendo University, Japan

ABSTRACT:

In the laparoscopic surgery, complications are significantly rare but do occur when the entry trocar is inserted. I'll review the various methodologies and complications associated with trocar

entry. It is crucial that laparoscopic surgeons understand and make every effort to establish safe entry.

INVITED SPEECH

THE TIPS OF TOTAL LAPAROSCOPIC HYSTERECTOMY (TLH)

SHAN-GUANG LIANG
Teikyo University Chiba Medical Center, Japan

ABSTRACT:
Total laparoscopic hysterectomy (TLH) is already wide-spread in Gynecological field. As you know, the merits of TLH are quite attractive, for instance, minimally invasive, rapid recovery and so on. On the other hand, there are some dangerous parts during the procedure. Once a complication occurs, it tends to get serious and the patients' disappointment becomes too big. So we should avoid such complications. There are some tips for the purpose of the safety. First of all, technique must be guaranteed. The second is device. We believe 5mm stroboscope (30 degree) is necessary. Koh Cup or Vaginal Pipe is also a must item for safe manipulation. To avoid bleeding, enough sealing before cutting is quite important. For the prevention from ureter trouble, pushing or pressing up the uterus towards cranial direction by second assistant is also important. In this presentation, I would like to speak about the topics what is important for the safety of TLH with showing videotape.

INVITED SPEECH

SOPHISTICATED USE OF A THIRD ROBOTIC ARM

TAE-JOONG KIM
Affiliation Samsung Medical Center, Sungkyunkwan University, School of Medicine, South Korea

ABSTRACT:
The advantages of robot-assisted surgery are many because robot platform overcomes many of the obstacles conventional laparoscopic system. Robot platform increase dexterity, restore proper hand-eye coordination and an ergonomic position, and improve visualization. With robot platform, instrument manipulation is more intuitive. With the surgeon sitting at a remote, ergonomically designed console, robot platforms also eliminate the need to twist and turn in awkward positions to move the instruments and visualize the monitor. With all of these strengths, the surgeon is able to control both hands like ambidexterity.

In addition, the surgeon can directly control another instrument, so called 'a third arm." Most gynecologic surgeons use a grasper of 'prograsp" as a third arm, which holds tissues and facilitates dissection with traction and couter-traction. In my opinion, sophiscated use of a third arm makes your operation extraordinary. Herein, I'd like to explain how to position a third arm efficiently in hysterectomy and lymph node dissection.

Symposium 9
General/Benign

INVITED SPEECH

SEVERE ADHESION IN LAPAROSCOPIC SURGERY

ARANYA YANTAPANT
Thailand

ABSTRACT:
Postoperative adhesions after pelvic surgery is common and important problem in gynecology. It can occur after most of the gynecological surgeries especially in management of rupture ovarian cyst, presence of infection, multiple trauma during surgery, bowel surgery, and multiple pelvic surgeries. Pelvic and abdominal adhesions have been associated with significant gynaecological morbidity, including infertility, chronic pelvic pain, small bowel obstruction, and difficulty with surgical access or surgical complications in the future. In most of the cases, laparoscopic treatment of adhesions is safely and effectively done by laparoscopic surgeons specially trained and experienced in performing this type of surgery. However, laparoscopic adhesiolysis is still challenging problem for gynecologist. The lack of skill and experience of surgeon in adhesiolysis procedure may lead to increase morbidity and mortality of the patients.
Pelvic adhesion can occur accidentally without previous surgery especially in laparoscopy for diagnosis and management of chronic pelvic pain, chronic inflammatory disease and malignant diseases. Therefore, proper preoperative preparation and planning are very important issue. It includes review of patient's clinical presentation and diagnosis, detailed counselling of patient, preparation of adequate and suitable equipment, consideration of safest surgical approach and alternative techniques in case of difficulty occurred. The following techniques are needed to consider in management of adhesion in laparoscopy:
•Previous scar area should be avoided for choosing of port sites (port sites should be in virgin area)
•Use the open technique for primary port entry
•Balloon and blunt trocar should be used for primary trocar.
•Filmy adhesions are needed to cut because they can lose after increased intra-abdominal pressure.
•Adhesiolysis should be started from normal or least adhesion area to dense adhesion region to get surgical plane easily
•Sharp dissection should be the primary technique used for adhesiolysis. •Thermal energy sources must be avoided as much as possible to reduce adhesion recurrence • Surgeon should bear in mind about normal pelvic anatomy during dissection of adhesion. •Both surgical team and patient should pray for good outcome.
During post-operative period, the patient should be carefully monitored for signs of bowel obstruction, bowel injuries, and post-operative infections. Patient should be explained thoroughly about operative findings and procedure performed. Early ambulation and adequate hydration are encouraged.

INVITED SPEECH

LAPAROSCOPIC OVARIAN DRILLING – STILL HAS A ROLE IN CURRENT MANAGEMENT OF PCOS PATIENTS

ZAINUL RASHID MOHD RAZI
Obstetrical and Gynaecological Society of Malaysia, Malaysia

ABSTRACT:

Since the introduction of the first surgical intervention for patients with PCOS in 1935 by Stein and Leventhal, several surgical techniques have evolved over the years to treat this condition. These include wedge ovarian biopsy, laparoscopic ovarian drilling (LOD) and transvaginal hydrolaparoscopy, just to name a few. Of these techniques, LOD has been widely practised with high success rate. However, surgical treatment for PCOS seemed to have taken a backseat lately due to several setbacks and side-effects following these procedures as well as the introduction of newer mode of medical treatments for PCOS patients, which are less invasive.

The advantage of LOD technique is that it is minimally invasive, minimal pain with short duration of hospital stay. Patency of the fallopian tubes can also be ascertained during procedure. Following the procedure, there was normalization of the serum luteinizing hormone (LH) and testosterone levels. LOD has been shown to improve outcome of ovulation induction in clomiphene citrate resistant patients with PCOS. Even the dose of the follicular stimulating agents tends to be lower following LOD. The surgery somehow tends to improve the receptivity of the follicles to the exogenous follicular stimulating agents. It also reduced the risk of cancellation of the ART treatment. There was also a reduction in the incidence of ovarian hyperstimulation syndrome (OHSS) for those undergoing ART treatment. However, the total number of oocytes retrieved and embryos formed were lower following LOD even though the pregnancy rate with or without LOD was similar. This was illustrated by a lower Anti-Mullarian Hormone (AMH) serum level following LOD indicating a reduction in the ovarian reserve following this procedure. Cases of premature ovarian failure has even been reported following LOD.

Thus, to reduce the insult to the ovaries due to the intense heat during LOD, a pool of cooling media such as normal saline, should be placed in the Pouch of Douglas (POD) prior to starting the ovarian drilling. Following the procedure, the ovary can be cooled down immediately by dipping it into the cooling media for several seconds.However, LOD definitely has its setbacks. The main disadvantage is the use of general anaesthesia to the patient when performing this procedure. Local damage to the surrounding tissues and organs are known complications of LOD such as injury to the bowel, bladder, ureter, pelvic blood vessels and nerves. To ensure and minimise the safety of this procedure, several precautions are recommended. “Not too Many, Not Too Deep and Not too Long” would be a safe principle to apply when performing LOD. “Ensure a Clear view of what is around the subject of LOD”, especially any organs posterior to the ovary as the intense heat has been known to cause injury to the bowel, bladder and ureter unintentionally.

To reduce adhesions following the procedure, a pseudo-ascitic fluid using a colloidal solution such as gelafundin with addition of an anti-adhesions agent such as heparin can be placed inside the pelvic cavity. However, the patient’s body must remain in the 45º position from the horizontal for the next two weeks following the operation to ensure that the fluid is maintained in the pelvic cavity to prevent adhesions.

The effect of LOD is usually short term. If the patient do not conceive within 6 months or more following the surgery, the condition tends to return with a vengeance. Thus, following LOD, the patient must take all the necessary efforts to try to conceive. In view of all the possible side effects, after all that has been said and done, ovarian drilling should only be reserved as a second or even a third line treatment in current management of PCOS. This is especially when all medical treatment had failed to produce satisfactory follicular stimulation and ovulation.

INVITED SPEECH

MORCELLATION CONTROVERSY…THE WAY FORWARD

PONG-MO YUEN
The Hong Kong Gynaecological Endoscopy Society, Hong Kong

ABSTRACT:

Morcellation is the reduction of a solid tissue specimen into smaller pieces to permit extraction through smaller incisions. Power morcellation refers to the use of electro-mechanical device to perform the morcellation. Traditionally morcellation is performed in uterine fibroids directly in the abdominal cavity. This potentially can result in dissemination of cells and leaving fragments of tissues behind However as uterine fibroids are mostly benign tumour and the risk of malignancy was generally believed to be in the vicinity of 1 in 10, 000, the procedure was considered to be safe and widely accepted. Following a case of dissemination of an unexpected leiomyosarcoma after a laparoscopic subtotal hysterectomy with power morcellation of of presumed uterine fibroids in Oct 2013 in USA, a campaign was put against the use of power morcellation. In April 2014, FDA discouraged the use of laparoscopic power morcellation in hysterectomy and myomectomy and in November 2014 FDA warned against the use of laparoscopic power morcellation in the majority of women undergoing myomectomy or hysterectomy for treatment of fibroids. This was based on a meta-analysis of 18 studies suggesting that the risk of an unsuspected uterine sarcoma was 1 in 352 (0.28%) women and an unsuspected leiomyosarcoma was in 1 in 498 (0.2%) women undergoing hysterectomy or myomectomy for presumed benign fibroids However, there are potential problems with the FDA analysis and subsequent studies reported a much lower incidence of unexpected sarcoma Also the potential implication of direct morcellation on dissemination of malignancy, upstaging of the disease and worsening of the prognosis are still controversial. Various strategies and techniques of fibroid removal were developed and contained morcellation inside a specimen bag appears to be a safe approach. However, the procedure is technically more difficult due to the larger size and solid nature of the tumour, and the need for adequate visualization of the morcellation process. The availability of appropriate sizes and material of the containment bag is also very limited. Recently, the FDA allows marketing of the first-of-it-kind tissue containment system for use with certain power morcellators in a selected group of patients. However, the containment system has not been proven to reduce the risk of cancer spread during surgery.

Symposium 10
Oncology

INVITED SPEECH

LYMPHATIC MAPPING IN CERVICAL CANCER

PHANIDA JARRUWALE
Department of Obstetrics and Gynecology, Phramongkutklao Hospital, Thailand

ABSTRACT:
Minimally invasive surgery is worldwide surgical technique in gynecologic conditions and has been favorite used in oncologic operation also. Lymph node is one of the most important prognostic factors for cervical cancer. Lymphadenectomy is still one step of standard surgical treatment procedure for early stage cervical carcinoma. Sentinel lymph node identification can reveal metastatic node. Many methods of sentinel node detection are exhibited such as vital blue dye, radioactive isotopes in single or combined technique. Nowadays, Fluorescence technique such as Indocyanine green (ICG) is used in various oncologic tumors for intraoperative sentinel mapping. Thus, as the special characteristic of minimally invasive surgery combine with sentinel lymph node mapping technique has benefit in oncologic malignant surgical treatment which can reduce surgical duration, complications and unnecessary surgery.

INVITED SPEECH

PERIOPERATIVE AND CLINICAL OUTCOMES IN THE MANAGEMENT OF EPITHELIAL OVARIAN CANCER USING A ROBOTIC OR ABDOMINAL APPROACH, A SUBSEQUENT ANALYSIS

GERALD FEUER
Atlanta Gynecologic Oncology, L.L.C., USA

ABSTRACT:
The preoperative and clinical outcomes in the robotic vs. abdomina l approach to the management of Ovarian Cancer will be presented. This will include personal data out to past five years. A review of the literature and videos of pertinent techniques will also be presented.

INVITED SPEECH

LESS RADICAL AND MORE FUNCTIONAL APPROACHES IN MIS OF GYNECOLOGIC ONCOLOGY

DAE-YEON KIM
Department of Obstetrics and Gynecology, Asan Medical Center; University of Ulsan College of Medicine, Seoul, South Korea

Symposium 11
Endometriosis

INVITED SPEECH

LAPAROSCOPIC SURGERY FOR RECTAL ENDOMETRIOSIS AND DEEP INFILTRATING ENDOMETRIOSIS AND THE ISSUE OF MALIGNANT TRANSFORMATION

YOSHIAKI OTA
Kurashiki Medical Center, Japan

ABSTRACT:
Malignant transformation reportedly occurs in 0.7 to 1.6% of cases of endometriosis. A total of 80% are derived from ovarian lesions, and 20% are derived from lesions other than those in the ovary, such as the intestine, deep infiltrating endometriosis, abdominal wall, and pleura. I would like to talk about cases of malignant transformation of endometriosis derived from a non-ovarian lesion.

In our hospital, 2,314 laparoscopic surgeries were performed for endometriosis from 2008 to 2015. Fertility-preserving surgery comprised 47.8% (1,107 operations). Among those, deep infiltrating endometriosis was observed and removed in almost half, involving 557 cases. Ureterovesiconeostomy was performed for ureteral endometriosis in 22 cases, and segmental rectal resection was performed for rectal endometriosis in 65 cases. In 3 cases, malignant transformation of rectal endometriosis was suspected. In a case with malignant transformation of deep infiltrating endometriosis, HE stain identified malignant transformation and a site of transition to malignant cells.

The rate of intestinal endometriosis is reportedly 7-37%. If we suppose that rectal endometriosis is observed in 7% of 2,314 cases, the rate of malignant transformation would be 1.85% (3/162). Deep infiltrating endometriosis was noted in about 50% of those who underwent fertility-preserving surgery in our hospital, and the rate of malignant transformation was about 0.09%.

Rectal endometriosis and deep infiltrating endometriosis cause not only dysmenorrhea but also pain on defecation and dyspareunia. Furthermore, malignant transformation requires attention, as is the case with ovarian endometrioma.

INVITED SPEECH

LAPAROSCOPIC RECTOVAGINAL DISSECTION FOR ENDOMETRIOSIS

SEVELLARAJA SUPERMANIAM
Obstetrical and Gynaecological Society of Malaysia, Malaysia

ABSTRACT:

Deep infiltrating endometriosis (DIE) is a particular form of endometriosis which extends > 5mm under the peritoneal surface. These lesions develop in the form of retroperitoneal nodules that consists histologically of endometrial epithelium and stroma, surrounded by muscular hyperplasia and fibrosis. DIE nodules are rich in nerve fibres and are commonly associated with severe cyclic or acyclic pelvic pain such as dysmenorrhoea, deep dyspareunia, and non-menstrual pain and organ-specific symptoms related to bladder or intestinal dysfunction (dyschezia, constipation, diarrhoea, rectal bleeding, frequency or micturition and hematuria).

There are 3 types of DIE: 1: endometriosis involving the bladder 2: endometriosis involving the ureter and 3: rectovaginal/ bowel endometriosis. Clinicians are frequently faced with the difficulty of diagnosing DIE. Various diagnostic modalities have been employed to diagnose with accuracy the extent of DIE. These investigations include ultrasound (transvaginal and transrectal), MRI, CT scan, intravenous urography, cystoscopy and rectosigmoidoscopy.

Ureteric endometriosis can either be intrinsic or extrinsic. These two types often cannot be reliably distinguished from each other before surgery. The extrinsic is more common. The goal of the surgery is to free (ureterolysis) and decompression of the ureter. In intrinsic endometriosis the option is to either perform partial resection of the ureter with end- to end anastomosis or direct ureteric reimplantation with a psoas hitch technique.

Endometriosis of the bladder can lead to painful and ineffective bladder contractions. It may present with micro or macrohematuria. It may be diagnosed by cystoscopy if there is deep penetration into the mucosa of the bladder but generally diagnosed laparoscopically. Transurethral resection is contraindicated because endometriosis infiltrates transmurally from the outside in. Laparoscopic surgery will require the infiltrated portion of the bladder to be dissected free from the body of the uterus until the macroscopically disease free vesico-uterine space is reached. Depending on the depth of penetration, the endometriosis can either be shaved off or partial resection of the bladder can be done. When the disease is close to the trigone, stenting is necessary and a cystoscopy can be used assist in the marking of the lower border before laparoscopic partial excision of the bladder.

INVITED SPEECH

IDENTIFICATION OF HYPOGASTRIC NERVES TO AVOID BLADDER DYSFUNCTION AFTER SIMPLE HYSTERECTOMY FOR DEEP ENDOMETRIOSIS

TOMOYASU KATO
National Cancer Center Hospital, Japan

ABSTRACT:

AIM: Autonomic nerve damage during surgery is thought to play a crucial role in the etiology of bladder dysfunction, sexual dysfunction and colorectal motility disorders that are seen in patients after radical hysterectomy. These autonomic nerves can be dissected during the different phases of radical hysterectomy. Simple hysterectomy for deep endometriosis has sometimes impaired urinary voiding function. As a procedure that is common both, the uterosacral ligaments are divided. The hypogastric nerves enter the pelvic plexus at the anterosuperior corner. Therefore, the running of hypogastric nerves would provide good landmark for nerve preservation of pelvic plexus during nerve-sparing radical hysterectomy as well as simple hysterectomy for deep endometriosis. The aim of this study is to identify the location where the hypogastric nerves enter the pelvic plexus during the simple hysterectomy.

METHODS: Developing the pararectal space between the ureter and the internal iliac vessels, the running of the hypogastric nerves along the rectum is to be identified. The ureter is separated from the retroperitoneum and this tissue plane is kept facing downwards. This tissue plane includes the hypogastric nerves and the pelvic plexus, which is corresponded to the ureterohypogastric fascia. Then, the cul-de-sac of the peritoneum is cut and the rectovaginal space is developed.

Results: Both sides of the rectovaginal space are surrounded by the urterohypogastric fascia. The hypogastric nerves are identified to run along the urterohypogastric fascia under 3cm of the ureter and join the pelvic plexus at the top of posterior fornix of the vagina.

CONCLUSION: After break through the strong adhesion at the rectovaginal cavity, it tends to be widely resected during the simple hysterectomy for deep endometriosis. To preserve the pelvic plexus for retaining the bladder function, the position of the posterior fornix of the vagina should be confirmed by pelvic examination before dividing the uterosacral ligaments.

Symposium 12
Endometriosis

INVITED SPEECH

IS ENDOMETRIOSIS EXCISION STILL EFFECTIVE?

RELLY YANUARI PRIMARIAWAN
Indonesian Gynecological Endoscopy Society, Indonesia

ABSTRACT:

Endometriosis is benign gynecology disorder which has two main symptoms such as pain and subfertility. Up till now the cause of endometriosis is unknown yet that's why goal of the treatment still symptomatic. Medical treatment, surgery and assisted reproduction technology are complimentary treatment for endometriosis. Endometriosis excision is one of surgical technique to reduce pain and or enhance fertility.

INVITED SPEECH

AN UPDATE ON SURGICAL MANAGEMENT OF OVAIAN ENDOMETROMA IN INFERTILE WOMEN

WAI-IENG FONG
Macau Obstetricians and Gynecologists Association, Macau

ABSTRACT:
Endometrosis is a common disease, affecting women mostly during their reproductive phase. The prevalence is estimated to range between 5-19%. In addition, 30-50% of woman with endometrosis experience fertility problems. Ovarian endometromas, which are a common feature of endometrosis, create a complex situation for infertile patients. There is much debate over the treatment of these cysts in fertile women, particularly before use of assisted reproductive technologies. Both the presence of endometromas and surgical excision of endometromas appear to be damaging the ovarian function and ovarian reserve. Surgery is the predominant clinical practice for the treatment of endometromas and the most common surgical technique is stripping of the endometroma. The recommendations from the recent ESRHE guideline for women with endometromas undergoing surgery for infertility or pain are to perform laparoscopic excision rather than drainage and electrocoagulation of the endometroma wall. Although this technique has several advantages including increasing spontaneous pregnancy rated to 50%, it has also been shown to further reduce ovarian reserve. Nevertheless, the presence of an endometroma does not appear to adversely affect IVF outcomes and surgical excision of an endometroma does not appear to improve IVF outcomes. The most recent evidence suggests that asymptomatic infertile patients, especially those that are older, have diminished ovarian reserve, have bilateral endometromas, or have had prior surgical treatment, would benefit from proceeding directly to IVF. This treatment path would avoid the risks of associated with surgery and reduce the time to achieve pregnancy for the patient. In patient who have symptoms, intact ovarian reserve, unilateral cysts, or sonographic features concerning for malignancy or who are not planning on pursuing IVF, surgery may well be indicate. These women need to be adequately counseled on the potential for decrease in ovarian reserve. Regardless of the treatment plan, infertile patients with endometromas must be counseled appropriately before choosing either treatment path.

INVITED SPEECH

INDICATIONS AND EXTENT OF SURGERY FOR ENDOMETRIOSIS

PETER J. MAHER
University of Melbourne, Australia

ABSTRACT:
Pelvic surgery for endometriosis is difficult and potentially dangerous.

There are few conditions which require more surgical skill from the gynaecological surgeon. Endometriosis has a huge impact on the bill of major western countries. There are many varied presentations and appearances of the disease.

Patients need to understand the disease and the treatment options available. They need to be informed of the ramifications of the surgery and the other available treatment ie. medication.

The two main symptom streams of endometriosis are pain and infertility. Depending on which category the patient is in surgery, drug therapy or both may be applicable. It is important for both the doctor and the patient to realize that this disease may be controlled but there appears no absolute cure. A relationship between endometriosis and infertility has long been thought to exist.The impact of endometriosis on the outcome of IVF therapy is,to say the least,controversial. There are several factors that influence surgical intervention and its extent. The approach needs to be well planned and excellent surgical skills and anatomical knowledge is essential. There are theoretical advantages for the place of GnRH analogs.

Different surgical strategies are required depending on the anatomical areas affected by the disease.
For cases of infertility the impact of the surgery on ovarian reserve is of paramount importance and must be a priority.
Where recto-sigmoid is involved ie. with DIE excellent anatomical and surgical skills is paramount.
Preoperative investigations such as CT, MRI and USS are essential to prepare the surgeon for what lies ahead.
Results of laparoscopic interventions are compared to earlier laparotomy series to determine the efficacy of treatment.

The pendulum swings between shaving, discoid resection and segmental resection in terms of what is correct management of DIE.
It is agreed across the board that this type of surgery should be restricted to Units specialising in the management of advanced disease.
Adenomyosis must now also be considered as a contributor to patients symptoms when contemplating management strategies in these difficult cases.
Across the spectrum of management protocols a more conservative approach is being recommended in both oncologic and benign disease.

Medical Law and Ethics Forum

INVITED SPEECH

THE ETHICS AND REGULATORY CONSIDERATION OF UTERINE TRANSPLANTATION IN TAIWAN

DANIEL FU-CHANG TSAI
Department & Graduate Institute of Medical Education and Bioethics, National Taiwan University College of Medicine, Taiwan

ABSTRACT:
This presentation will deliberate upon the ethics of uterine transplantation (UT). The benefit and risk of UT will be

examined, the ethical issues involved will be analyzed, and the regulatory and legal perspectives in Taiwan will be explored. Since the legislation efforts for surrogate pregnancy has not been successful in the past 20 years in Taiwan, UT might shed some light of hope on those female patients who were born unfortunately to be auterus and have long, desperately waited for such legislation…

INVITED SPEECH

WHEN WOMEN ARE NO LONGER NEEDED TO BEAR CHILDREN -- ETHICAL AND LEGAL ISSUES IN ARTIFICIAL WOMB

WEN-MAY REI
Division of Policy & Law,
Institute of Public Health, National Yang-Ming University, Taiwan

ABSTRACT:

Scientific development in artificial womb has led to new hope for women that cannot bear their own child. While most of the new technologies involved in artificial wombs within the body can be governed by the regulatory framework of new medical technology; merely the idea of an artificial womb outside of human body challenges the current legal and ethical structure of parentage based on the woman that delivers the baby. It also challenges the current legal framework of abortion which uses "viability stage" to justify the permissibility of abortion. Moreover, since an artificial womb would keep the embryo outside of womb for more than 14 days, this also threatens current regulation on embryonic research, and may force use to revisit the appropriateness of the time limit. While women may be liberated from their traditional role of child-bearing, what implication would this technology have for women, children as well as the society? How should the law and research ethics receive these potentialities? This paper intends to revisit the justifications of these regulatory frameworks and reflect upon how the law and ethics should respond to the potentiality of an artificial womb.

INVITED SPEECH

MEDICAL INCIDENT OF GYNECOLOGIC SURGERY

TIEN-FU KAO
Department of Law, Ming Chuan University, Taiwan

ABSTRACT:

From the point of view of medical risk theory, only medical results with avoidability are medical incidents, so natural death and results due to natural course of diseases are excluded. Using the concepts of preventability, medical incidents can be divided into medical negligence and medical risk. Furthermore, using the concepts of predictability, medical mishaps include medical complications and side effects of medicine, while medical accidents include comorbidity and anaphylaxis.

This paper further analyzes the three kinds of medical incidents – medical negligence, medical mishaps, and medical accidents – than can happen during gynecologic endoscopy operations. According to the literature, medical negligence account for 30 % of medical incidents, while the remaining 70 % of medical incident are medical risks that are outside the physician's control despite best efforts. Ultimately, this paper proposes that the way to resolve medical disputes is to follow the principle of "Compensation for Incidents, Relief for Risk and Indemnity for Negligence."

In conclusion, first, this paper shows the need to create a common language based on medical risk theory to allow legal professionals and medical professional s to have productive discussions once medical disputes arise in order to resolve such l disputes. Second, medical negligence arising out of gynecologic endoscopy can be resolved by hospital patient care groups through reconciliation and apologies and indemnity by the physician's medical liability corporation. Third, medical risks of gynecology endoscopic surgery can be relieved by the Surgical Risk Relief System of the Ministry of Health and Welfare, and the Medical Association's own Obstetrics and Gynecology Endoscopic Surgery Risk Relief Fund. Fourth, to promote the decriminalization of medical negligence, only intentional medical incidents should be subject to criminal liability in order to reduce the practice of defensive medicine and to stabilize the medical environment.

Symposium 13
Robotic Surgery

INVITED SPEECH

THE DIFFERENCE BETWEEN USING A DA VINCE XI AND SI SURGICAL ROBOTS IN PARAAORTIC LYMPHADENECTOMY

PETER C. LIM
Medical Director of Robotic Institute, Renown Regional Medical Center, USA

ABSTRACT:

Robotic surgery platform was approved for gynecologic surgery in 2005. Since that time it has completely revolutionized and shifted the surgical paradigm to minimally invasive surgery. The rate of open hysterectomy in the United States has nearly decreased from 60% to 40% while the rate of robotic surgery has increased to nearly 30%. The biggest adopter of robotic surgical platform has been in the field of gynecologic oncology. Since the approval of robotic surgical platform for gynecologic surgery, there have been four generations of robotic surgical platform that have been developed. The robotic Si system has introduced a single site incision to perform uncomplicated hysterectomy without the need for multi incisions. Along with this advancement, there have been development of instrumentations such as the vessel sealer. This instrumentation has multifunctional purpose such as grasping, dissecting, skeletonizing, sealing and cutting which have allowed (procedures including but not limited) to robotic assisted nerve sparing radical hysterectomy and robotic pelvic

exenteration to be performed more efficiently . Robotic stapler facilitates sigmoid resection and small bowel resection and anastomosis in the setting of advance ovarian cancer. The Firefly technology allows sentinel node sampling in endometrial cancer where a full pelvic lymphadenectomy may be avoided.
Lastly, the development of 4th generation Robotic platform the Xi system, have revolutionized the robotic surgery. The Xi system relies on laser guided docking which facilitates docking. The Xi robotic arms are suspended on a boom mounted system which allows for 360 degree rotation. This feature allows the surgeon to perform multiquadrant surgery much more efficiently which is critical as part of the surgical staging or ovarian cancer debulking. The redesigned robotic Xi arms are much thinner, lighter, and the implementation of the extra joint minimizes arms clashing and allows for much greater extension to operative field. These features circumvent the limitation of patient's body habitus. Lastly, the new endoscope that is for the Xi system is a much lighter endoscope that doesn't require draping and calibration. The new endoscope allows a feature of "port hopping". This technology allows the endoscope to be placed in any of the robotic ports which allows much more flexibility which is required in complex multiqudrant surgery.

INVITED SPEECH

ROBOTIC SURGERY IN CERVICAL CANCER

KUNG-LIAHNG WANG
Superintendent, Taitung Mackay Memorial Hospital, Taiwan

ABSTRACT:
Cervical cancer is the most common gynecological cancer in the world. The surgical treatment for cervical cancer has evolved over the last 20 years from open radical hysterectomy, laparoscopic assisted radical vaginal hysterectomy, then to total laparoscopic radical hysterectomy.
Radical trachelectomy has been shown to be a safe and feasible option in patients diagnosed with cervical cancer who wish to preserve their fertility. The procedure was first described by Dargent et al. in 1994. Most of the published literature on radical trachelectomy has been on the vaginal approach. However, the vaginal approach can be technically difficult in nulliparous women without pelvic descent and requires a surgeon comfortable with a radical vaginal approach. Alternatively, several studies have reported the safety and feasibility of the abdominal approach.
In the past 20 years, the intraoperative benefits of the laparoscopic technique include minimal blood loss, less adhesion formation and better visual perspective. More and more gynecologic surgeons perform laparoscopic radical hysterectomy and trachelectomy for the management in patients diagnosed with cervical cancer. However, these techniques have not seen widespread adoption because of technical difficulties, long surgeons' learning curve and long operative time.
Ever since the approval of DaVinci robotic surgical system for gynecologic surgery by FDA in 2005, the robotic approach can offer the same advantages of minimally invasive surgery (decreased blood loss, decreased pain, quicker return of bowel function, etc.) to patients requiring these challenging procedures. In my experience, the complication rate of robotic radical hysterectomy and trachelectomy is much lower than that of laparoscopic radical hysterectomy and trachelectomy in the hands of experienced gynecological oncologists. I believe, in the future, robotic radical hysterectomy and trachelectomy will become a popular and widespread alternative to conventional surgery in the management of patients with early stage cervical cancer.

Symposium 14
Robotic Surgery

INVITED SPEECH

ROBOTIC STAGING OPERATION IN ENDOMETRIAL CANCER

MASAAKI ANDOU
Kurashiki Medical Center, Japan

INVITED SPEECH

ROBOTIC SURGERY IN OVARIAN CANCER

WU-CHOU LIN
Department of Obstetrics and Gynecology, China Medical University Hospital, Taiwan

Symposium 15
Robotic Surgery

INVITED SPEECH

ROBOTIC SINGLE-SITE SUPRACERVICAL HYSTERECTOMY

HUNG-CHENG LAI
Department of Obstetrics and Gynecology, Taipei Medical University-Shuang Ho Hospital, Taiwan

INVITED SPEECH

ROBOTIC SINGLE-SITE MYOMECTOMY

HYE-SUNG MOON
Department of Obstetrics & Gynecology, Ewha Womans University Medical Center, South Korea

ABSTRACT:
The emergence of laparoendoscopic surgery has initiated an era of minimal invasive surgeries in every surgical field. Laparoendoscopic Single-site Surgery (LESS) has been widely applied in a short amount of time thanks to its advantages of shorter hospitalization, faster recovery, less morbidity and better cosmetic outcome (Ricaardo A et al, 2012). Although the dream of scar-less surgery first seemed to be achieved, LESS had technical limitations such as deficiency of port triangulation and the clashing of laparoscopic instruments (Stefano B et al, 2014).
The da Vinci Surgical System (Intuitive Surgical Inc., Sunnyvale, CA, USA) was developed in 2000 and became available after its U.S. Food and Drug Administration clearance in 2005. Robotic surgical system provides advantages to surgeon and patients with improved surgical precision, visualization, ergonomics and dexterity, decreased postoperative pain, smaller incisions, less scarring, and faster recovery, shorter hospital stay, and faster return to normal activities (Sokol A et al, 2009, Reich H et al, 2007).
Based on the advantages of single-port-approached pelviscopy, pain reduction and higher patient satisfaction, Single-Site Robotic Surgery was developed. Although hysterectomy has been performed by single-site, first one done by Fader in 2009, myomectomy and cystectomy have been performed by multi-site in limited numbers due to the limitations.
347 cases of Robotic Single-Site Surgery was performed from November 2014 to August 2016 by the da Vinci Si Surgical System including Single-Site® platform for benign gynecological conditions at Ewha Womans University Medical Center, Seoul, Korea. These surgeries include the representative three different types of surgery: hysterectomy, myomectomy, cystectomy and other surgery. I have done 194 Robotic Single-Site Surgery including 54 Single-Site myomectomy successfully.
There is remained some limitation of instrument articulation, less cauterization power, motion limit, and more needed suture skills even though excellent patient satisfaction. Robotic Single-Site Surgery is a feasible and safe procedure for gynecologic surgery including RSS myomectomy.

Symposium 16
Myoma

INVITED SPEECH

IMPACT OF MYOMECTOMY ON SUBSEQUENT PREGNANCIES: FROM THE VIEWPOINT OF UTERINE BLOOD SUPPLY

SATORU TAKEDA
Department of Obstetrics & Gynecology, Juntendo University, Japan

ABSTRACT:
Perinatal care in Japan has made rapid progress in recent decades, leading to dramatic declines in maternal mortality, perinatal mortality, and neonatal mortality, achieving remarkable improvement of obstetrical outcomes. These results are the fruits of persistent efforts and dedication by our pioneering obstetricians and gynecologists. physicians and health administrations, working together, have devoted their full strength to establishing these innovative developments. However, maternal mortality, which had continuously declined steadily until 2007 (3.1/100,000 births), thereafter fluctuated annually and reached 2.7/100,000 in 2014, signaling a halt in any further decline. This appears to be attributable to a variety of factors present in the past 20 years such as changes in the environment and social situation surrounding women including later marriage, rise in maternal age, and greater numbers of high-risk pregnant women.
Recently, transcatheter arterial embolization (TAE) for massive hemorrhage at the time of delivery contributed to an improvement in the maternal survival rate and a decreased hysterectomy rate, but brought new problems such as abnormal menstruation, infertility, placenta accreta during the next pregnancy, and uterine rupture. In addition, in pregnancy after laparoscopic myomectomy, there are reports describing complications such as uterine rupture, placenta percreta, and incomplete rupture of the uterus in Japan.
As a viewpoint of the obstetrician, I would like to discuss about the relation between uterine blood supply and complications of uterine rupture and placenta percreta on subsequent pregnancy after laparoscopic myomectomy and TAE.

INVITED SPEECH

LAPAROSCOPIC MANAGEMENT OF UTERINE MYOMA

OSAMU TSUTSUMI
Sanno Hospital, Japan

INVITED SPEECH

LAPAROSCOPIC MANAGEMENT OF BROAD LIGAMENT LEIOMYOMAS: AN OVERVIEW

AIZURA SYAFINAZ AHMAD ADLAN
University Malaya Medical Centre, University of Malaya, Kuala Lumpur, Malaysia

Symposium 17
General/Benign

INVITED SPEECH

SURVEY AMONG ESGE MEMBERS ON LEIOMYOSARCOMA MORCELLATION INCIDENCE

VASILIOS TANOS
ESGE, Cyprus

ABSTRACT:

Introduction: Increased awareness of sarcoma risk during myomectomy or hysterectomy is essential. Objective and correct reasoning should prevail on any decision prior to extent and type of surgery. The anticipated risk of a sarcoma after myoma or uterus morcellation is low and the frequency of LMS especially in women below the age of 40 is very rare. The prevalence data has a wide range and is therefore not reliable. The European Society of Gynaecological Endoscopy (ESGE) initiated a survey among its members looking into the frequency of morcellated leiomyosarcomas (LMS) after endoscopic surgery.

Design and Method: The ESGE Central office has send to 3422 members a structured electronic questionnaire with multiple structured answer options. After 3 months the answers were classified with a unique number in the EXCEL spread sheet. Statistical analysis was done using the SPSS v.18.

Results: Out of 3422 members, 294 (8.6%) gynaecologists replied to the questionnaire, however only 240 perform myomectomies by laparoscopy and hysteroscopy and hysterectomies by laparoscopy. The reported experience in performing laparoscopic myomectomy (LM), hysteroscopic myomectomy (HM), laparoscopic hysterectomy (LH) and laparoscopic subtotal hysterectomy (LSH) on an average was 10, 8 (1-32) years. The vast majority 67.1% had over 5 years of practice in laparoscopic surgery. The total number of 221 LMS was reported among 429,777 MIS (laparoscopic and hysteroscopic myomectomies and LH and LSH), performed by all doctors in lifetime. The overall reported sarcoma risk of all types of endoscopic myoma surgery has been estimated to be 1.5‰ operations. Categorizing by type 57 (0.06% LMS operated by LM and 54 (0.7‰) by HM, while 38 (1.3‰) LMS operated by LSH and 72 (3.1‰) by LH. The probability of a sarcoma after morcellation to be falsely diagnosed by histopathology as a benign tumor and later a revised examination to reveal a sarcoma has been reported and calculated to be 0.2‰. The low risk of a sarcoma is also reflected by the small number of only 32 doctors reported that operated once, 29 twice and 18 doctors operated 3-10 sarcomas by laparoscopy during their lifetime.

Conclusion: Myomectomy by hysteroscopy or laparoscopy have similar risk of sarcoma with an incidence estimated 0.07%, much lower than LH and LSH. The reported low sarcoma incidence reflects the present European reluctant and careful gynaecological endoscopic surgery attitude already, to avoid laparoscopic power morcellation on suspicious for malignancy myomas.

INVITED SPEECH

NEW TECHNOLOGY INTRODUCES A REVOLUTION IN HYSTEROSCOPIC SURGERY

RUDI CAMPO
Leuven Institute for Fertility and Embryology, Belgium

YAG Video Presentation

YP-002

ONCOLOGY

OUTCOMES OF TOTAL LAPAROSCOPIC RADICAL TRACHELECTOMY

KEIKO EBISAWA
Kurashiki Medical Center, Japan

OBJECTIVE: To assess the outcomes of our total laparoscopic radical trachelectomy (TLRT) for early stage cervical cancer.

METHODS: A total of 81 patients who underwent TLRT between December 2001 and March 2016 were reviewed retrospectively using clinicopathological, surgical, and follow-up data from patients' medical records.

RESULTS: We performed TLRT in 81 patients. The mean age of these 81 patients was 32.2years (range, 22–42 years). The median operative time is 329 min (range 215–640 min). The median blood loss is 300 ml (range 75–1540 ml). The rate of intraoperative complications is 2.47% (2/81: injury to the right common iliac vein and the left external iliac artery). Two patient had recurrence The recurrence rate was 1.8% (2/81). Thirty-seven women attempted to conceive. Of these, 22 succeeded for a total of 32 pregnancies (pregnancy rate, 59.5%). Of those, 7 were first trimester miscarriages, 2 were second trimester miscarriages, and 21 produced live births. Seventeen pregnancies reached the third trimester. Two pregnancies are ongoing.

CONCLUSIONS: TLRT is a useful technique associated with an excellent pregnancy rate in fertility-preserving surgery to treat early stage cervical cancer.

KEY WORDS: *TLRH*

YP-004

LAPAROSCOPIC SURGERY

SINGLE PORT SURGERY -ONLY USING 2 PORTS-

MASAAKI ANDOU, YOSHIAKI OTA, KEIKO EBISAWA, TOMONORI HADA
Kurashiki Medical Center, Japan

OBJECTIVE: We seek for smaller and fewer wound. This concept is reduced port surgery. We would like to present new type of single port surgery. This surgery uses only 2 ports, it means one port for scope and one port for forceps. On this situation, I performed adnexectomy for ovarian cyst and tubectomy for ectopic pregnancy.

METHODS: Only we cut umbilical bottom not to exceed the umbilical ring for cosmetic reason. We insert two 5mm ports directly, and use 45 degrees rigid scope. We use uterine manipulator and distinctive lift up technique (Spider-Man's Lift Up). For lifting up and mobilize the tumor, we insert straight needle from right side of abdomen and suture 2 times around tube. To strengthen the holding, we make one knot around tube, and pull away the needle from left side of abdomen. So we can move the tumor both side by pulling each other. This is Spider-Man's lift up technique. By using this technique, we can mobilize tumor right and left. ENSEAL Articulating is vessel-sealing system with articulating, and we can make perpendicular approach to every vessel and cut peritoneum along the incision lines. After dissection, we enter the small bag from 5mm port wound, and reuse Spider-Man's Lift UP technique to enter the tumor to the extraction bag imaging claw crane game.

RESULTS: We performed 6 operations without complication and adding port. Operation time is during 29-79min.

CONCLUSIONS: Single port surgery has demerit of cosmetics when the wound exceed the umbilical ring, but only using two 5mm ports, wound becomes smaller and more cosmetic. Spider-Man's lift up technique is new type of lift up technique to mobilize the tumor, and ENSEAL Articulating can seal and cut everything at pleasure. There are limitation of this method but this is a new step toward reduced port surgery.

KEY WORDS: *Single port surgery , new technique , Reduced port surgery*

YP-007

UROGYN/PELVIC FLOOR DISORDERS/VAGINAL SURGERY

SUCCESSFUL VAGINAL REPAIR OF VESICO-VAGINAL FISTULA POST-HYTERECTOMY

WEN-HSIN CHEN, KUAN-HUI HUANG, LING-YING WU, FEI-CHI CHUNG, FU-TSAI KUNG, TSAI-HWA YANG, YU-WEI CHANG
Kaohsiung Chang Gung Memorial Hospital, Taiwan

OBJECTIVE: Vesicovaginal fistula is perhaps the most feared complications of female pelvic surgery. More than 50% of such fistulas occur after hysterectomy for benign diseases such as uterine fibroids, menstrual dysfunction, and uterine prolapse. It can either result from obstetric trauma or malignancy, or radiation. The urine from the bladder freely flows into the vaginal vault, leading to total or continuous incontinence. Currently, the transvaginal approach is preferred because it results in less morbidity. It is safe and recover shortly for the patient.

METHODS: We will describe a case: an otherwise healthy 39 year-old patient with symptoms of persistent urine leakage from the vagina after laparoscopic assisted transvaginal hysterectomy. Conservative treatment as prolonged bladder drainage was given for a month, but urine leakage still remained. Intravenous pyelography and cystoscope showed a vesico-vaginal fistula at the base of bladder, at least 1 centimeter large. So surgical repair was arranged at 3 months after first operation. We demonstrate a video containing the procedures of vaginal repair of vesico-vaginal fistula.

RESULTS: The patient was discharged with an indwelling urinary catheter. A follow-up uroflowmetry performed on the 3rd weeks postoperatively demonstrated no evidence of extravasation. There was no evidence of recurrence at the follow-up visit. General Principles of fistula repair include adequate exposure, careful dissection and mobilization of bladder and vaginal wall, excision of scar tissue, and water tight closure in layers. Postoperative continuous bladder drainage should be kept for 2-3 weeks.

CONCLUSIONS: With an appropriate exposure the fistula and experienced surgeon, transvaginal repair of vesico-vagina is feasible and result in short recovery time, less blood loss, lower post-operative morbidity. The minimally invasive approach of vaginal VV fistula repair may be a attractive option for patients with VV Fistula.

KEY WORDS: *vesicle-vaginal fistula, posthysterectomy, vaginal repair*

YP-009

GENITAL TRACT ANOMALIES

LAPAROSCOPY METROPLASTY OF UNICORNUATE UTERUS WITH NON-COMMUNICATING RUDIMENTARY HORN

CHIH-FENG YEN[1], ANDRY LO[2]
Chang Gung Memorial Hospital, Taiwan[1]
Pondok Indah-Puri Indah Hospital, Indonesia[2]

OBJECTIVE: Unicornuate uterus with non-communicating rudimentary horn is the most uncommon mullerian anomaly of female genital tract. It has an estimated incidence of one in 100,000 among female population. And type IIb is the most common and clinically significant type.These patients typically present with dysmenorrhea, dyspareunia, and chronic pelvic pain because of endometriosis and distention of the non-communicating rudimentary horn.

METHODS: Early detection and management is important to prevent further damage to reproductive organ.Traditionally, removal of t he rudimentary horn and its tube is the standard treatment to avoid many gynaecological and obstetric

complications such as miscarriage, ectopic pregnancy, preterm labor, intrauterine growth restriction, intrauterine fetal death, fetal malpresentation. This is a case of 13-year-old female, with the chief complaint of progressive cyclic dysmenorea. Pelvic examination examination was not done due to no sexual exposure. Ultrasond revealed normal uterus while rudimentary horn was seen with hematmetra within. A 7x6cm left adnexae mass was also noted. MRI studies showed normal size uterus uterus with cervix while rudimentary horn was seen with hematometra. Left multiloculated cystic mass and agenesis of right kidney was also noted. She was planned for hysteroscopy diagnostic, laparoscopy uterine metroplasty and enucleation of left endometrioma.

RESULTS: Under general anesthesia with endotracheal intubation, patients were placed in Trendelenburg position with legs bandaged and supported in the stirrups. A 12F foley catheter was inserted. Hysteroscopy diagnostic revealed one cervix. A 8F foley balloon inserted intrauterine as a guide. Laparoscopy confirmed the presence of unicornuate uterus with rudimentary horn, left endometrioma, and hematosalpinx. The procedure started wit adhesiolysis and enucleation of left endometrioma. The ovarian tissue reconstructed with monocryl suture. Then carried out with metroplasty. Horizontal incision was made from rudimentary horn to hemiuterus fundal area and deepened down to both endometrium. Hematometra in rudimentary horn was noted. The opposing myometrial edges then sutured longitudinally in two layers using barbed suture. The serosa layer was closed with continuous intracorporeal sutures using monocryl. Cook balloon was inserted intrauterine to prevent intrauterine adhesion.

CONCLUSIONS: Follow up ultrasound 4 months after surgery revealed equal size uterus and rudimentary horn. Office hysteroscopy revealed smooth and uniform spacious cavity. In this patient, we performed metroplasty since the uterus is relatively small which may also cause the same complications when the patient get pregnant. Laparoscopy metroplasty is a feasible option in management of unicornuate uterus with non-communicating rudimentary horn. Operative laparoscopy is preferable for management of mullerian anomaly especially for younger women.

KEY WORDS: *Laparoscopy metroplasty , Unicornuate Uterus with Non- Communicating Rudimentary Horn*

YP-011

LAPAROSCOPIC SURGERY

SIMPLIFIED TECHNIQUE FOR CORNU REANASTOMOSIS

JUTATIP SINYODYEAM
Charoenkrungpracharak Hospital, Thailand

OBJECTIVE: There are many women who had previously underwent sterilization need to restoration of fertility. microsurgical reversal of tubal sterilization is reliable. Significant progress in laparoscopic surgery has made it to be able to reverse tubal strilization by laparoscopy.

METHODS: In This case, the lenght of proximal tube is too short, it is difficult to suture tube approximately. We use nylon No.0 insert to proximal and distal tube as a stent, then We suture the tube by 3 point technique.

RESULTS: by usind non-absorbable suture(nylon No.0) as a stent in patients who are performed operation can help procedure done easier and can be achieved.

CONCLUSIONS: There are many techniques to perform tubal resterilization. Principal techniques are minimize tissue trauma, skeletonize the fallopian tube and use three point technique suture. In case the lenght of proximal tube is too short,using non absorable suture as a stent in patients who performed operation can help procedure done easier and could be achieved.

KEY WORDS: *reanastomosis , stent*

YP-013

HYSTEROSCOPY, ENDOMETRIAL ABLATION AND STERILIZATION

FEASIBILITY OF HYSTEROSCOPIC RESECTION ON ENDOMETRIAL STROMAL SARCOMA (ESS): CONSERVATIVE MANAGEMENT, 5 YEARS FOLLOW UP

PLOYTIP SIRIARPORN
Charoenkrung Pracharak, Thailand

OBJECTIVE: Objective: The aim of this study was to report a case of low grade endometrial stromal sarcoma (ESS), 5 years following conservative surgery by hysteroscopic resection.

METHODS: Methods: A retrospective review of 19 years old nulliparous woman with stage IA, low grade ESS who was treated with hysteroscopic resection in 2010. A high dose of progestin (Depot-medroxyprogesterone acetate) therapy was then administered. Periodical surveillance included clinical examinations, radiographic studies and hysteroscopy have been used.

RESULTS: Results: A complete remission of the low grade ESS after hysteroscopic resection. There is no evidence of disease recurrent at 5 years follow up.

CONCLUSIONS: Conclusion: In selected case, treatment of stage IA low grade endometrial stromal sarcoma with hysteroscopic resection appears to be a safe alternative to hysterectomy with bilateral salpingo-oophorectomy.

KEY WORDS: *endometrial stromal sarcoma , hysteroscopic resection , conservative management*

YP-014

LAPAROSCOPIC SURGERY

REVERSE LAPAROSCOPIC-ASSISTED VAGINAL HYSTERECTOMY

KORAPIN RUDTANASUDJATUM
Bangkok Metropolitan Endoscopic Excellence Center, Charoenkrung Pracharak Hospital, Thailand

OBJECTIVE: To simplified laparoscopic hysterectomy technique

in the hugh uterus.

METHODS: In the case of Hugh uterus above 20 pregnancy weeks size, especially one that fits the pelvic cavity, to do the Hysterectomy is quite difficult, either via laparotomy or laparoscopy. Because of the increase risk of bleeding, injury to surrounding organs especially the ureter and difficulty to approach to the vaginal cuff. Laparoscopic-Assisted vaginal hysterectomy (LAVH) is preferred option rather than total laparoscopic hysterectomy (TLH). But LAVH still has risk of bleeding due to immobilized uterus,which make it difficult to secure the great vessels such as uterine artery. We propose the new technique called "Reverse LAVH", start by vaginal approach first, do the colpotomy, secure both uterine arteries and then do the laparoscope later. The main benefits are to minimize bood loss and make the uterus more mobilized.

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KEY WORDS: *Reverse laparoscopic assisted vaginal hysterectomy*

YP-016

LAPAROSCOPIC SURGERY

THE GREAT SUCCESSFUL OF NOTES MYOMECTOMY

WANCHAT KOMON
BMEC, Charoenkrung Pracharak Hospital, Thailand

OBJECTIVE: The advantages of laparoscopy over traditional laparotomy have been accepted worldwide for many years. To further reduce surgical morbidity, the evolutionary trend has been towards even less invasive techniques, such as single-incision laparoscopic surgery (SILS) and natural orifice transluminal endoscopic surgery (NOTES). Minimally invasive surgery improves cosmetic outcome, and also reduces surgical injury, which in turn decreases the infammatory and neuroendocrine responses, and leads to less postoperative pain and quicker recovery. Moreover NOTES reaches the abdominal cavity by scar-free means.

METHODS: In this presentation, I would like to show a modern innovative technique of scar-free gynecologic surgery to remove intramural uterine myoma. This case was a 28 years old woman who presented with infertile condition. Transvaginal sonography revealed a 5-cm intramural uterine myoma which located at posterior wall of uterus. Then, she was recommended to remove the uterine mass for correcting the infertile problem. After discussion about surgical options, due to her cosmetic concerned, she was scheduled to do transvaginal NOTES myomectomy. Beyond the advantage of old fashion laparoscopic surgery which still need to have multiple abdominal scars, transvaginal NOTES myomectomy is a woundless technique that use to treat the disease and meet the criteria the patient's requirement in cosmetic issue.

RESULTS: After surgery, she did not ask for pain killer and she was discharged from our hospital on post-operation day 2. The overall pain score was only 1 of 10 in first 24-hour after surgery. As her concern, there was no scar on her abdomen. She can wear abdominal-exposed dress and beautiful bikini. This was a really holistic and modern innovative surgery that i would like to share with.

CONCLUSIONS: Beyond the advantage of old fashion laparoscopic surgery which still need to have multiple abdominal scars, transvaginal NOTES myomectomy is a woundless technique that use to treat the disease and meet the criteria the patient's requirement in cosmetic issue. By it's name, all ports are inserted transvaginally. Advanced hand skills are needed to do in this operation due to it's limited space to operate. Experienced teamwork is an important factor for successful outcome. After surgery, she did not ask for pain killer and she was discharged from our hospital on post-operation day 2. The overall pain score was only 1 of 10 in first 24-hour after surgery. As her concern, there was no scar on her abdomen. She can wear abdominal-exposed dress and beautiful bikini. This was a really holistic and modern innovative surgery that i would like to share with.

KEY WORDS: *NOTES , NOTES MYOMECTOMY , LAPAROSCOPIC MYOMECTOMY*

YP-018

ENDOMETRIOSIS

TOTAL LAPAROSCOPIC HYSTERECTOMY WITH LOW ANTERIOR RESECTION FOR DEEP INFILTRATING PELVIC ENDOMETRIOSIS WITH RECTAL INVOLVEMENT

ANGELITO MAGNO
De La Salle University Medical Center, Philippines

OBJECTIVE: Pelvic Endometriosis resembles gynecologic malignancy because it can invade surrounding structures. The aim of this paper is to report a case of deep infiltrating endometriosis with rectal involvement managed laparoscopically.

METHODS: The patient is 37 years old who complained of severe progressive dysmenorrhea and tenesmus for 1 year. On gastrointestinal series, a 3.8 cm persistent luminal narrowing at

the middle rectum. On Computed Tomography (CT) scan, lower rectal stenosis was diagnosed. Colonoscopy revealed a bulging tumor with smooth mucosa at the rectum. The impression was Deep Infiltrating Endometriosis (DIE) with rectal invasion.

RESULTS: She underwent total laparoscopic hysterectomy with low anterior resection. Total laparoscopic hysterectomy was done by ligating the round ligaments and utero-ovarian ligaments. The vesico-uterine peritoneum was opened and deflected down. Uterine arteries were ligated. The cervico-vaginal junction was circumferentially incised removing part of posterior vagina with endometriosis. The hysterectomy was completed and the uterus was removed vaginally. The ow anterior resection was started by mobilizing the rectosigmoid from its attachment from the retroperitoneum and pelvic sidewalls. The rectum was cut and sealed using the trilayer stapling device. The proximal sigmoid was exteriorized vaginally. The pathologic segment was removed and the Anvil part of the circular stapler was inserted. The center rod was pierced through the distal rectum. The anvil and center rod was connected and stapled. End-to-end intestinal anatomosis was completed

CONCLUSIONS: Deep infiltrating endometriosis was noted in the left uterosacral, upper vagina and rectovaginal septum with rectal stricture. In dealing with DIE, complete pre-operative evaluation is important to determine the extent of the disease. Coordination with colorectal surgeon who can perform laparoscopic surgery is also imperative. New Stapling devices are now available for laparoscopic end-to-end intestinal anastomosis.

KEY WORDS: *Deep Infiltrating Pelvic Endometriosis*

YP-020

LAPAROSCOPIC SURGERY

A NEW APPROACH TO THE LAPAROSCOPIC MANAGEMENT OF INTERSTITIAL ECTOPIC PREGNANCY

ABHISHEK MANGESHIKAR
Mangeshikar Hospital, India

OBJECTIVE: Cornual or interstitial pregnancy is a rare form of ectopic pregnancy, accounting for 2-4% of all ectopic pregnancies and mortality ranging from 2-2.5%. Hemorrhage is a key concern in management of such pregnancies. Traditional treatment options include a conservative approach, failing which patients are offered surgical options such as cornual resection at laparotomy, which carries a high risk of hysterectomy. In recent years newer laparoscopic cornual resection or cornuotomy techniques have been used successfully to achieve better outcomes with fewer complications. We present a new technique involving an "enucleation" of the ectopic sac, similar to a myoma, with an attempt to conserve as much uterine tissue as possible as well as reduce intra operative blood loss.

METHODS: After a diluted solution of vasopressin (10 units in 50-100 ml of 0.9% saline solution) is injected into the fundus of the uterus a specimen retrieval bag is placed in the cul de sac with it's open mouth facing upwards to collect any spillage of contents. A circumferrential incision is made around the cornual pregnancy, and an attempt is made to enucleate the sac without rupture, by a combination of gentle traction and counter traction and meticulous hemostasis and sharp dissection through the adherent tissues. An attempt is made to conserve as much uterine tissue and adjacent structures as possible. Suturing of the wound may be done in single layer or multiple layer depending on surgeon preference but as long as hemostasis is achieved and an attempt is made to imbricate the rough myometrium as an added measure of adhesion prevention.The specimen is retieved via posterior colpotomy or through one of the lateral port and a thorough lavage is performed.

RESULTS: Hemorrhage is one of the grave concerns of cornual ectopic pregnancies. The technique described here serves to reduce blood loss as well as conserve uterine tissue and adnexal structures as far as possible. Also the issue of sub-fertility after an ectopic pregnancy may not be entirely solved but perhaps slightly alleviated. However, most of the literature propogates a cornual resection or cornuotomy. The technique described here seems to be the first of it's kind.

CONCLUSIONS: In general, the available literature provides no clear guidance regarding optimal laparoscopic management and subsequent fertility risks. At the same time the abundance of reported safety and efficacy of laparoscopic treatment makes it a reasonable alternative to laparotomy. Long-term follow-up of fertility outcomes in these cases may help guide future management of cornual ectopic pregnancies. In conclusion, laparoscopic treatment of cornual ectopic pregnancies is a suitable and safe treatment option. In our experience this technique can be performed without causing unnecessary tissue dissection or trauma. It minimizes overall blood loss and allows a bloodless field for restoration of anatomy, therefore preventing hemorrhage-related patient morbidity and risk of hysterectomy.

KEY WORDS: *laparoscopic surgery , reproductive issues , new techniques*

YP-021

OTHERS

HOW TO DEVELOP PELVIC SPACES

MANATSAWEE MANOPUNYA
International APAGE fellowship, CGMH, Linkou, Taiwan

OBJECTIVE: The objective is to demonstrates how to develop avascular spaces of the pelvis.

METHODS: We describe and video-illustrate the laparoscopic technique of pelvic space performing.

RESULTS: Three pairs of ligaments divide the pelvic into eight avascular spaces. Pelvic spaces include prevesical space, vesicovaginal space, rectovaginal space, 2 paravesical spaces and 2 pararectal spaces.

CONCLUSIONS: An appropriate knowledge of anatomy and pelvic spaces assessment can be useful during gynecological procedures.

KEY WORDS: *Pelvic space , Develop , Laparoscopic technique*

YP-023

ONCOLOGY

LAPAROSCOPIC PARA-AORTIC LYMPH NODE DISSECTION WITH LEE-HUANG POINT AND PERITONEAL SUSPENSION TECHNIQUE

AMRUTA JAISWAL
Chang Gung Memorial Hospital, Taiwan

OBJECTIVE: Laparoscopic para-aortic lymphadenectomy is a important component in the surgical staging of endometrial carcinoma. Lymph node dissection improves survival in the presence of lymphatic metastasis. Proper technique with good anatomical knowledge is necessary to prevent any injury to important structures. PATIENT HISTORY: A 65-year-old G3P2A1 presented with post-menopausal bleeding of 20 days. Ultrasonography revealed endometrial thickness of 8mm with dilated endometrial cavity. Hysteroscopy showed papillary growth and histopathology of biopsy showed atypical complex hyperplasia suggestive of endometroid cancer. All lab investigation were normal. MRI suggested endometrial carcinoma (> 50% myometrial invasion) with no evidence of regional lymphadenopathy or any distant metastasis. Under the impression of endometrial ca stage IB, Laparoscopic staging surgery (hysterectomy, bilateral salpingo-oophorectomy, bilateral pelvic with Para-aortic lymph node dissection) was planned.

METHODS: Lee-Huang point was used as primary 10mm trocar and four ancillary ports of 5mm were used. Infundibulopelvic ligament was dissected. Retroperitoneum space entered through lateral approach. After completing hysterectomy with bilateral salpingo-oophorectomy, retroperitoneal space opened further to complete bilateral pelvic lymph node dissection and specimen removed in endo-bag. Retroperitoneal space opened beginning from sacral promontory and continued along right common iliac artery to expose ureter and lymph nodes. Some small tributaries anterior to venacava were coagulated to prevent bleeding. After identifying and lateralizing ureter right peritoneal flap was suspended temporarily on anterior abdominal wall and right side para-aortic lymph nodes were removed in endo-bag. On left side after identifying and lateralizing ureter peritoneum was suspended to abdominal wall, para-aortic lymphadenectmy was performed along the inferior mesenteric artery and continued below it along aorta.

RESULTS: Recovery of patient was uneventful. Histopathology revealed endometrioid carcinoma with 45% of myometrial invasion and right pelvic lymph node positive for malignancy. Cervix, adnexa, left pelvic lymph node, para-aortic lymph node and washing cytology were negative for malignancy

CONCLUSIONS: Laparoscopic staging surgery by experienced surgeons for endometrial cancer has favorable perioperative and long-term survival outcomes, and is an ideal alternative to laparotomy with the advantages of minimal invasiveness. Careful maneuver required to prevent damage to the ureter and major vessels. Transperitoneal approach for para-aortic lymphadenectomy provides familiar surgical field with great working space. Lee-Huang point approach offers wide access to abdominal cavity, proper visual angle and increase work space. Suspension of peritoneum is very important step as it helps in better exposure with lateralization of ureter and clear surgical field. Para-aortic lymph node dissection may help in identifying patient with metastatic dissemination and also has therapeutic effect for patients at intermediate or high risk of recurrence.

KEY WORDS: *Para-aortic lymphadenectomy, Laparoscopy, Lee-Huang Point*

YP-024

LAPAROSCOPIC SURGERY

GAS AND GASLESS SINGLE INCISION LAPAROSCOPY SURGERY FOR LARGE OVARIAL CYST IN PREGNANCY

EDWARD MULJADI, BINARWAN HALIM, HENRY SALIM SIREGAR, MUHAMMAD FIDEL GANIS SIREGAR, DELFI LUTAN
Department of Obstetrics and Gynecology of Universitas Sumatera Utara, Indonesia

OBJECTIVE: Most case reports and small series indicate that laparoscopy can be safely performed during pregnancy.To avoid and minimize the fetal and maternal risks during laparoscopic surgery in pregnancy, it is recommended to follow the guidelines for laparoscopic surgery during pregnancy. One of it is to minimized the exposure of CO2. Because CO2 exchange occurs with intraperitoneal insufflation there has been concern for deleterious effects to the fetus from pneumo-peritoneum. Also CO2 pneumo-peritoneum may increase the risk of deep venous thrombosis by predisposing to venous stasis. Although there is little research on prophylaxis for deep venous thrombosis in the pregnant patient, general principles for laparoscopic surgery apply.There are no data regarding use of unfractionated or low molecular weight heparin for prophylaxis in pregnant patients undergoing laparoscopy, though its use has been suggested in patients undergoing extended major operations

METHODS: We present a case of 30 years old woman, G4P3A0 with the age of 6 weeks pregnancy. Her abdomen was enlarge until like the size of a term pregnancy.We plan for Single Incision Laparoscopy Surgery (SILS) Salpingo-Oophorectomy.During her pre-surgery preparation, all blood test including tumor markers level were within normal.The ultrasound examination showed like a simple cyst.. Regarding to the recommendation from many literature about guideline of laparoscopy surgery in pregnancy, we try to reduce the usage of CO2 as much as possible by using gasless technique by using retractors to lift up the umbillicus after reducing the size of the cyst by evacuating the liquid of the cyst.We only start using CO2 during performing the Salpingo-Oophorectomy. The level of pneumo-peritoneum was maintained to12 mmHg.

RESULTS: Total time of surgery was 50 minutes. Total time of CO2 exposure was 30 minutes.The rest procedures such as exploration of the abdominal cavity, extracting the cyst fluid and adhesiolysis, were first being performed gasless.Total fluid of the cyst was 4500 cc. Total blood loss was 50 cc. Post operative condition of the fetus was within normal. The patient was only stay one night after the surgery.The pathology result after surgery proved it as a simple cyst. After surgery, we did a follow up for her pregnancy,all were within normal.

CONCLUSIONS: Benefits of laparoscopy during pregnancy appear similar to those benefits in non-pregnant patients including less postoperative pain, less postoperative ileus, decreased length of hospital stays and faster return to work. Pregnant woman may undergo laparoscopic surgery safely during any trimester without any increased risk to the mother or fetus. Postponing necessary operations until after parturition may, in some cases, increase the rates of complications for both mother and fetus. CO2

insufflation of 10-15 mmHg can be safely used for laparoscopy in the pregnant patient

KEY WORDS: *laparoscopy, gas, gasless, pregnancy, ovarial cyst, single incision laparoscopy*

YP-025

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

TECHNIQUE AND FEASIBILITY IN NOTES HYSTERECTOMY FOR VIRGIN WOMAN

SUPANSA ROMYEN
BMEC, Thailand

OBJECTIVE: Transvaginal NOTES hysterectomy benefit more than conventional laparoscopic hysterectomy because less postoperative pain, shorter hospital stay and good cosmetic outcome, bus has limitation in virgin woman and enlarged uterus. In these cases required some special technique and skills to perform. In this presentation, we show the operation performed to the patient who was 45 years old and virgin, came to hospital with pelvic mass problem. Pelvic examination and ultrasound reviewed enlarged uterus 18 wk size with intramural myoma.

METHODS: In operation, Transvaginal NOTES hysterectomy was performed, reusable laparoscopic instruments were used, LapBase Cap and wound retractor were used, 1 reusable 10 mm trocar and 3 reusable 5 mm trocars. Single port access platforms and wound retractor were inserted into vagina to create a pneumoperitoneum. The conventional steps of a vaginal hysterectomy were followed, but performed endoscopically with standard reusable endoscopic instruments, no intraoperative complication, estimate blood loss 400 ml, uterus 800 gm, operative time 1hour and 30minutes.

RESULTS: After surgery, patient was in good recovery with minimal postoperative pain. The pathological result was Leiomyoma.

CONCLUSIONS: In conclusion, Transvaginal NOTES hysterectomy is feasible and safe for virgin woman and in case of enlarged uterus. Single port endoscopic surgery with LapBase Cap to create better performance and to perform operation easily, we can improving safety, morbidity and cosmetic result of Laparoscopic surgery.

KEY WORDS: *NOTES hysterectomy , LapBase Cap*

Sunday, 6th November 2016

Room	102 (1st Floor)	103 (1st Floor)	105 (1st Floor)	201A (2nd Floor)	201B (2nd Floor)
08:00	-	-	-	Live Case Demostration Session	
i					
12:30	Lunch Break (Room 101 Exhibition Area) / Lunch Symposium (3F Banquet Hall & 4F VIP Room)				
13:30	Cross-Strait Forum 6	Symposium 18: Obstetrics	Symposium 20: Reproductive	Symposium 22: Oncology	Symposium 23: Myoma
i	→ Page 48	→ Page 49	→ Page 50	→ Page 52	→ Page 52
14:30	Best Poster Session (Final Contest)	Symposium 19: Oncology	Symposium 21: Endoscopic Training	Video Session 1	Video Session 2
i	→ Page	→ Page 49	→ Page 51	→ Page 65	→ Page 65
15:30	Closing Ceremony	-	-	-	-
i					
16:00	Congress Tour (Si-Si Nan Cun & Taipei 101) Assemble in the Lobby				

Keynote Lectures (Invited Speech)
Forums, Symposium, Sessions (Invited Speech)
Cross-Strait Forums (Invited Chinese Speech)

Program Overview

	201C (2nd Floor)	201D (2nd Floor)	201E (2nd Floor)	201F (2nd Floor)
	Live Case Demostration Session			
	Lunch Break (Room 101 Exhibition Area) / Lunch Symposium (3F Banquet Hall & 4F VIP Room)			
	Symposium 24: Endometriosis	Symposium 25: General/Benign	Oral Presentation 1	Oral Presentation 3
	→ Page 53	→ Page 53	→ Page 54	→ Page 54
	Video Session 3	Video Session 4	Oral Presentation 2	Oral Presentation 4
	→ Page 65	→ Page 65	→ Page 54	→ Page 54
	-	-	-	-
	Congress Tour (Si-Si Nan Cun & Taipei 101) Assemble in the Lobby			

Postgraduate Workshops
APAGE Fellow, Oral Presentations, Video Session, Young APAGE Group
Miscellaneous

Lunch Symposium 4

INVITED SPEECH

LAPAROSCOPIC ENDOMETRIAL CANCER STAGING SURGERY

GANG WANG
Guangdong The First People's Hospital of Foshan, China

Lunch Symposium 5

INVITED SPEECH

RAYMOND SETZEN
Department of Obstetrics & Gynaecology
Chris Hani Baragwanath Academic Hospital, South Africa

Cross-Strait Forum 6

INVITED SPEECH

TRANSUMBILICAL SINGLE-INCISION LAPAROSCOPIC VAGINOPLASTY HYBRID TRANSPERINEAL APPROACH USING A SIGMOID COLON SEGMENT: INITIAL 25 CASES

XIANGHUA HUANG
The Second Hospital of Hebei Medical University, China

INVITED SPEECH

APPLICATION OF LAPAROSCOPY IN OVARIAN CANCER AFTER NEOADJUVENT CHEMOTHERAPY

PING WANG
The West China Second University Hospital of Sichuan University, China

INVITED SPEECH

LAPAROSCOPIC DEBULKING SURGERY IN ADVANCED OVARIAN CANCER

GANG WANG
Guangdong The First People's Hospital of Foshan, China

ABSTRACT:

2005.1 至 2014.12 间，36 例经腹腔镜探查证实的晚期卵巢癌患者接受了腹腔镜下肿瘤细胞减灭术。患者平均年龄 54.8±11.4 岁（40-89 岁）。其中初始肿瘤细胞减灭术 26 例，间歇性肿瘤细胞减灭术 6 例，再次肿瘤细胞减灭术 4 例。包括子宫内膜样腺癌 6（16.7%），粘液性腺癌 1（2.8%），浆液性腺癌 28（77.7%），透明细胞腺癌 1（2.8%）。肿瘤分化程度 G1 1 例（2.8%），G2 12 例（33.3%），G3 23 例（63.9%）。肿瘤最大径线平均为 7.0±3.2（Ø 2-15cm）。

结果：满意减灭率 100%，肉眼切净率 77.8%（28/36）。手术病理分期 FIGO IIa 期 5 例 (13.9%)， IIb 期 2 例 (5.6%)， IIIb 期 2 例 (5.6%)，IIIc 期 23 例 (63.8%)，IV 期 4 例 (11.1%)。手术平均时间 281.7±93.4min（145~530min），术中中位出血量 100ml（20~2500ml）。无术中并发症发生。术后并发症发生率 16.7%（6/36），包括腹腔感染合并肠梗阻 2 例，肠郁张 1 例，阴道残端合并尿路感染 1 例，尿路感染合并尿潴留 1 例，膀胱阴道瘘 1 例。暂未发现穿刺孔转移。术后中位排气时间 2 天（2-3 天），中位住院时间 10 天（6-46 天）。2 例患者因个人原因未进行术后化疗，余 34 例开始术后化疗中位时间为第 0 天（0 至 27 天）(0 天表示术中腹腔化疗)，24 例（66.7%）患者术中进行铂类腹腔化疗。其中 2 例未遵医嘱或经济原因，术后第 27 天和 21 天才开始化疗。截止 2015.3，中位随访时间 15 个月（6-120 个月），1 例失访。2 例化疗不敏感，肿瘤未控，于术后 14 和 15 个月死亡；2 例未完成化疗计划，术后仅化疗 1 次，术后 11 月死亡。10 例复发，其中 4 例带瘤生存，6 例复发后死亡。36 例患者死亡率 27.8%（10/36），2 例仍在化疗阶段，19 例（52.8%）无瘤生存至今。2 年累计生存率为 78.4%，预期 5 年生存率 45.6%。中位无进展生存时间 (PFS) 和中位总生存时间（OS）分别大约为 22.5 个月和 32.0 个月。

结论：在严格选择病例的前提下，对晚期卵巢癌患者实施腹腔镜下肿瘤细胞减灭术在技术上是可行、有效和安全的；腹腔镜手术创伤小，术后恢复快，有利于术后尽早开始辅助化疗；腹腔镜卵巢癌肿瘤细胞减灭术的远期疗效有待进一步研究。

Symposium 18
Obstetrics

INVITED SPEECH

NON-INVASIVE PRENATAL SCREENING UPDATES AND CLINICAL APPLICATIONS

S.W. STEVEN SHAW
Linkou Chang Gung Memorial Hospital, Taiwan

INVITED SPEECH

LAPAROSCOPIC CERCLAGE: CGMH EXPERIENCE

KAI-YUN WU
Linkou Chang Gung Memorial Hospital, Taiwan

INVITED SPEECH

FETOSCOPIC TREATMENT FOR TWIN-TWIN TRANSFUSION SYNDROME (TTTS)

YAO-LUNG CHAN
Linkou Chang Gung Memorial Hospital, Taiwan

ABSTRACT:
Diagnosis of TTTS
The treatment of TTTS:
Expectant-medical management
Serial amniocentesis~
Laser photocoagulation
Selective Feticide:

Rationale for the use of laser photocoagulation in TTTS

Techniques for Identification of the Placental Vascular Anastomoses
Non-Selective Technique
Selective Technique (SLPCV and SQLPCV)
Solomon technique

Outcomes of TTTS treated by laser

Neurodevelopmental Outcome in Survivors of Twin-to-Twin Transfusion Syndrome treated by laser.

Symposium 19
Oncology

INVITED SPEECH

FERTILITY SPARING SURGERY IN TREATMENT OF EARLY STAGE OF CERVICAL CANCER

ALEXANDAR STEFANOVIC
Association of Gyn and Obs Srbia, Republic of Serbia

INVITED SPEECH

ROLE OF LAPAROSCOPIC SURGERY IN NEOADJUVANT OVARIAN CANCER

WISIT SUPAKARAPONGKUL
Thai Society of Gynecologic Endoscopists, Thailand

ABSTRACT:
One of the major concern for most Gynecologic Oncologist is the treatment of ovarian cancer. Primary treatment of ovarian cancer is optimal surgery and chemotherapy. Evidence has confirmed that maximum cytoreductive surgery with the least or non-residual tumour will effect the survival of patients. However, most ovarian cancer patients present with the advanced stage of disease, causing maximum cytoreductive surgery may not be able to achieve easily for both conventional laparotomy and minimal invasive surgery. Neoadjuvant chemotherapy for ovarian cancer had emerged its role to down size and stage of the disease to the level that is possible for optimal cytoreduction.

We will present the experience of minimal invasive surgery in ovarian cancer patients who received the treatment in National Cancer Institute of Thailand. Result of the surgery was a satisfactory outcome.

INVITED SPEECH

LAPAROSCOPIC STAGING AND TREATMENT OPTIONS IN PATIENTS WITH CERVICAL CANCER STAGES IB2 AND IIB

CHRISTHARDT KÖHLER
Dept. of obstetrics and gynecology, University of Jena, Germany

ABSTRACT:
Two very controversial discussed issues in gynecologic oncology are operative staging in locally advanced cervical cancer before primary chemoradiation and best treatment of stages IB2 and IIB cervical cancer.
In this presentation arguments of these topics are discussed and first results of randomized Uterus 11 study presented. Furthermore, proposal for a new study in patients with stage IB2 and IIB cervical cancer will be presented.

Symposium 20
Reproductive

INVITED SPEECH

ADENOMYOSIS AND REPRODUCTION

STEPHAN GORDTS
Leuven Institute for Fertility and Embryology (LIFE), Belgium

ABSTRACT:
With the development of high-resolution imaging techniques 3D and MRI, adenomyosis became a clinical entity. Junctional zone abnormalities range from increased thickness, to frank adenomyosis, to adenomyoma. Whilst adenomyosis is increasingly diagnosed in women with endometriosis, the precise role of adenomyosis in infertility remains controversial. Relation with reproduction will be discussed.

INVITED SPEECH

OUTPATIENT TRANSVAGINAL ENDOSCOPY AND OFFICE HYSTEROSCOPY AS ROUTINES DIAGNOSTIC AND SIMPLE THERAPEUTIC PROCEDURE IN INFERTITLITY MANAGEMENT

ICHNANDY ARIEF RACHMAN
Gatot Soebroto Central Army Hospital, Indonesia

ABSTRACT:
Transvaginal Endoscopy (TVE) is created to diagnose the cause of infertility. It is meant to avoid the risk of injury that cause by laparoscopy as a gold standar procedure for tuboperitoneal infertility, but still able to evaluate the posterior uterus, pelvic sidewalls, and adnexae. In 1998, the Leuven group (Gordts et al., 1998) described Trans Hydrolaparoscopy for exploration of the pelvic exploration of infertile patients without obvious pelvic pathology. The technique uses the transvaginal route, the patient lies in dorsal decubitus and access to the pouch of Douglas is achieved by a culdocentesis technique using a combined Veress needle-trocar system. abdominal distention is obtained by instillation of saline or preferably lactated Ringer's solution. In this way, the new technique adds the benefits of hydroflotation to the closer, clearer and more detailed view of the Fallopian tubes and ovaries achieved by culdoscopy.

Outpatient setting for diagnostic TVE can be done under local anesthesia. Combined with diagnostic hysteroscopy and chromotubation, it can replace hysterosalpingography (HSG) as the first-line diagnostic test for the infertile woman. Studies have shown high patient tolerability with less pain reported post procedure than with HSG. TVE has been shown to have a high concordance with HSG for tubal patency, but TVE diagnosed more intrauterine abnormalities as well as finding adhesions and endometriosis not visible with HSG. In addition, salpingoscopy may be performed during TVE to assess the tubal lumen. TVE also has a high concordance rate with laparoscopy when a complete evaluation is accomplished during TVE. Complications of TVE are uncommon and minor.

This presentation will elaborate and discuss generally about TVE instrumentation, indication – contraindication and the procedure itself and more about the patient selection, preparation and the challenges that we have to encounter to make this procedure as a daily office routines. We also share Indonesian experience with data that show the feasibility, performance and complication of TVE.

Keyword: transvaginal endoscopy, out-patients setting.

INVITED SPEECH

THE ROLE OF MINIMALLY INVASIVE SURGERY IN THE MANAGEMENT OF INFERTILITY

ANGELA G. SISON-AGUILAR
Philippine Society for Gynecologic Endoscopy, Philippines

ABSTRACT:
Assisting women in achieving a pregnancy is an increasing challenge in gynecologic practice. Many conditions which hamper fertility are resistant to medical management and require surgical intervention. Minimally invasive surgery is the preferred strategy as it minmizes harm to the reproductive tract. In addition, the fast recovery of patients allows them to proceed to fertility treatment, decreasing time to pregnancy. Ovulatory disorders, uterine disorders and tubal disorders can benefit from MIS. Women with polycystic ovary syndrome refractory to ovulation induction or experienced ovarian hyperstimulation syndrome despite all precautions may consider laparoscopic

ovarian drilling. Intracavitary uterine lesions may benefit from hysteroscopic resection to improve success of both medically assisted reproduction (intrauterine insemination) and assisted reproductive technology (in vitro fertilization with embryo transfer). Tubal disease can be corrected to a certain extent by laparoscopic fimbrioplasty or salpingoneostomy, especially those whose access to IVF is limited by cost, religious belief or personal preference. Reversal of tubal sterilization can likewise be accomplished laparoscopically. The value of laparoscopic surgery for endometriosis is equivocal and is dependent on the stage of disease, co-morbidities, age of patient and presence of male factor. Lastly, Mullerian anomalies can be diagnosed and possibly corrected using MIS. It is important to assess the clinical situation and determine whether surgery or assisted reproductive techniques (ART) are more appropriate for the patient. The value of these surgical procedures therefore should be reviewed against ART in terms of effectiveness, cost, and risk to allow both clinician and patient to decide which treatment pathway to pursue.

Symposium 21
Endoscopic Training

INVITED SPEECH

EXPANDING EDUCATIONAL PLATFORM: 5-YEARS EXPERIENCE IN BCAT TRAINING PROGRAM

VEERAPOL KHEMARANGSAN
Bangkok Metropolitan Excellence Endoscopic Centre, Thailand

ABSTRACT:
Minimally invasive techniques are gaining importance in many operative fields thus require a continuous improvement both of theoretical knowledge as well as of practical skills. Since 2010, Bangkok Metropolitan Excellence Endoscopic Centre (BMEC) has offered a broad range of endoscopic courses to accommodate with gynaecologists who have different level of skills, age and time available. Quality is the key. This article provides an overview of the courses taken in BMEC and how we expand educational platform.

Our state-of-the-art training facility in BMEC, offers one-year training fellowship for a maximum of 6 participants. This course has set up in joint agreement between Bangkok Metropolitan Administration and Chang Gung Memorial Hospital with endorsement from APAGE. Different training modules have been developed for “dry” lab training in laparoscopic procedures. Intensive lectures are being held once a week with 4 levels of examination. Video-Editing is being taught and weekly presentation of video editing, innovative video and journals have to be done. Hands-on sessions on real case are issued every week. Participants have to be promote from third surgeon to second and first surgeon respectively. Prior graduate, all of the participants have the chance to do real-case surgery for an average of 30 cases as the first surgeon. These are all the basic cases of laparoscopic myomectomy, laparoscopic hysterectomy and laparoscopic adnexectomy. Each participant has to pass the hands-on animal models in APAGE Shanghai Workshop to be able to have the chance to do lymphadenectomy, bowel, bladder and ureteric reparation. Everyone has to visit Chang Gung Memorial Hospital for one month to have the glimpse of advance laparoscopic surgery techniques. Usually, most of the gynaecologists who had graduated may not have the confidence in doing laparoscopic on their first few cases, our facility offers “after service” service to help our fellows feel more confidence. Staffs from BMEC will go to help at our fellows’ hospitals for the first few months after graduation.

BMEC still realises that the number of new laparoscopists cannot meet the demand of the patients. We further set on the short-course for basic endoscopic surgery to influence young gynaecologist to start endoscopic surgery. And short-course for advanced endoscopic surgery for those gynaecologists who need advance skills of minimally invasive surgery.

For the past 5 years of participating in teaching laparoscopic surgery, BMEC had graduated 30 participants for one-year fellowship. We expand our training platform to different parts of Thailand. We take trips to do live-surgery to influence gynaecologists on the feasibility of laparoscopic surgery. The aim of BMEC is to improve welfare of the patient, as well as, promoting new gynaecologists into all aspects of minimally invasive surgery.

INVITED SPEECH

TRAINING AND CERTIFICATION IN GYNECOLOGIC ENDOSCOPY IN THE PHILIPPINES

DORIS BENAVIDES
U.P. College of Medicine and Philippine General Hospital, Philippines

ABSTRACT:
Training in gynecologic endoscopy, hysteroscopy and laparoscopy, was first incorporated in the curriculum of the Fellowship Training in Reproductive Endocrinology and Infertility at the University of the Philippines-Philippine General Hospital in 1994. At that time, there were very few medical centers in the Philippines, accredited for service and residency training by the Philippine Board of Obstetrics and Gynecology (PBOG), that had access to hysteroscopy and laparoscopy. Ten years after this introduction of endoscopy as part of a fellowship training program, in 2005, records have shown that only 25% of these PBOG-accredited hospitals have access to hysteroscopy and laparoscopy.

At present, there is no fellowship program dedicated solely to gynecologic endoscopy in the Philippines and endoscopy is yet to be incorporated into the residency training curriculum. Residents in training get to be exposed to gynecologic endoscopy when they rotate and assist in Reproductive Medicine cases or in the private cases of attending obstetrician gynecologists. There are three ways by which an obstetrician gynecologists can pursue training in gynecologic endoscopy. The trainee can also opt to go thru a laparoscopy track or a hysteroscopy track or combined laparoscopy and hysteroscopy. The 3 ways in which one can undergo endoscopy training are: (1) training in gynecologic endoscopy as part of the fellowship program in reproductive endocrinology and infertility; (2) fellowship in endoscopy (minimum of six months) in any of the accredited

training institution abroad or (3) a modular Post Residency Training Program/preceptorship locally wherein there are 4 steps required to achieve proficiency. Step 1 involves Basic Diagnostic Laparoscopy and Hysteroscopy with Animal Workshop while Step 2 consists of Operative Laparoscopy and/or Hysteroscopy instruction and simulation. Step 3 is the surgical preceptorship in laparoscopy and/or hysteroscopy wherein the trainee assists an accredited preceptor in a required number of cases for a maximum of three years of completion. Step 4 is the proctored practice in laparoscopy and/or hysteroscopy. The trainee will be performing operative procedures under the supervision and assistance of a certified gynecologic endoscopy fellow. The cases that have been collated will then be submitted for the credentialing process.

The Philippine Society for Gynecologic Endoscopy (PSGE) has been founded in 2004 with the objective of actively promoting the practice of gynecologic endoscopy among obstetrician gynecologists. The Specialty Board of the PSGE is the accrediting body in the practice of gynecologic endoscopy – laparoscopy and hysteroscopy. Credentialing requires completion of the training program achieved thru any of the three aforementioned processes and submission of a compilation of cases performed as primary surgeon with the necessary attached documents such as the operative record, surgical pathology report, whenever applicable, all duly signed by the respective department chair/ hospital director and the accredited PSGE Fellow who assisted the applicant/trainee. Credentialing aims to promote and safeguard the interests of all stakeholders: the competent surgeons are distinguished from the novices, the hospitals and health care facilities are guaranteed of adequately trained staff of health professionals, the endoscopic industry suppliers are assured of end users that are responsible and capable specialists, and, ultimately, the public is assured of delivery of safe and competent health care.

Symposium 22
Oncology

INVITED SPEECH

RECONSTRUCTIVE SURGERY AFTER RADICAL RESECTION

MASAAKI ANDOU
Kurashiki Medical Center, Japan

ABSTRACT:

The basic skills required for complete resection of extended tumors like extra-gonadal endometriosis or advanced cancer are intracorporeal suturing and stapling. Bowel disease, like rectal endometriosis requires high or low anterior resection with double stapling. Tumor involving the urinary tract requires different techniques like ureteroneocystostomy, Boari flap or ileal substitution.

INVITED SPEECH

CHALLENGES AND ACHIEVEMENTS OF MINIMALLY INVASIVE SURGERY IN GYNECOLOGIC ONCOLOGY

AUDREY TIEKO TSUNODA
Hospital Erasto Gaertner and Instituto de Oncologia do Paraná, Brazil

ABSTRACT:

Minimally invasive surgery (MIS) has been overcoming frontiers along the years. Several procedures, previously considered impossible, are now standardized, as a result of better indications, precise skills, and technologic advances. This lecture will present some great achievements in gynecologic oncology, and the challenges to be conquered.

INVITED SPEECH

LYMPHNODES MAPPING IN CERVICAL CANCER BY MIGS: INDICATIONS, BENEFITS AND LIMITS

NICOLAE SUCIU
Romanian Society of Obstetrics and Gynecology, Romanian

ABSTRACT:

In recent years the development of laparoscopic surgical techniques in gynecologic cancers has allowed a less invasive approach results at least similar. According to several studies Sentinel Lymph Node mapping with near-infrared fluorescent imaging using indocyanine green appears to be safe, easy, and reproducible, with lower morbidity and less time consuming.

Symposium 23
Myoma

INVITED SPEECH

LAPAROSCOPIC MYOMECTOMY- INDICATIONS AND TECHNIQUES

MITSURU SHIOTA
Department of Gynecologic Oncology, Kawasaki Medical School, Japan

INVITED SPEECH

OUTCOME RESULTS OF ENDOMETRIAL ABLATION IN PATIENTS WITH MYOMAS

FRANKLIN D. LOFFER
AAGL, USA

ABSTRACT:
Myomas per se are not a contraindication to EA but certain risk factors must be appreciated.

INVITED SPEECH

MEDICAL TREATMENT OF UTERINE FIBROIDS

HANS-RUDOLF TINNEBERG
Department of Gynecology and Obstetrics, University of Giessen and Marburg, Germany

Symposium 24
Endometriosis

INVITED SPEECH

DEEP ENDOMETRIOSIS: THE CONCEPT OF ECONOMICAL RADICALITY

ARNAUD WATTIEZ
Rouen University Hospital, France

ABSTRACT:
Endometriosis affects young patients and have a great impact on their quality of life. Pelvic pain is the commonest complain and surgery is the most efficient way to get rid of it. Since years it has been known that the excision of the lesions was the best approach to obtain the best cure and avoid recurrences. So, it is better to resect a peritoneal implant compare to simple coagulation. Recurrence are much less after cystectomy compare to drainage and coagulation.
Bladder endometriosis is better treated by partial cystectomy compare to coagulation by laparoscopy or cystoscopy. When it comes to bowel endometriosis, the discussion becomes less clear. Colorectal surgeons practiced in the past large trans mesenteric excision for benign lesions of the recto-sigmoid colon leading to bowel dysfunction post operatively.
In the same way, ovarian cystectomy can sometimes affect the ovarian reserve.

Radicality is better for removing the disease but however, it has its complications which are mainly organs dysfunction.
Hence, the most recent development of surgery in endometriosis and specifically for DIE have been focusing to be radical towards the disease, but at the same time conservative towards the organ function.
The aim of this lecture is to describe the most economical approach to the disease according to its organ location with the aim to associate radicality and organ preservation in order to reach the main goal of this indication: to improve the quality of life of these patients.

INVITED SPEECH

THE BEST HYSTERECTOMY FOR YOUR PATIENT COST & EVIDENCE BASED

BHASKAR GOOLAB
University of Witwatersrand, South Africa

INVITED SPEECH

LAPAROSCOPIC MANAGEMENT OF URINARY ENDOMETRIOSIS

TED LEE
University of Pittsburgh Medical Center at Magee Women's Hospital, USA

ABSTRACT:
The objectives of the presentation will cover pathophysiology, clinical presentations, diagnosis and management of bladder, and ureteral endometriosis including video presentation of surgical resection of bladder and ureteral endometriosis as well as uretolysis.

Symposium 25
General/Benign

INVITED SPEECH

ENDOMETRIOSIS AND THE URETER

HANIFULLAH KHAN
Cyberjaya University College of Medical Sciences, Malaysia

ABSTRACT:
The risk of injury, specifically to the ureter, remains a major challenge to optimal endometriosis surgery. Key to success is intimate knowledge of pelvic anatomy, the characteristics and locations of endometriotic implants, a detailed understanding of surgical techniques, instrumentation and energy sources and an ability to recognise and overcome intraoperative complications. These aspects are highlighted here.

INVITED SPEECH

ENDOMETRIOSIS: CURRENT BEST EVIDENCE ON ITS SURGICAL MANAGEMENT

NADEEM FAIYAZ ZUBERI
Department of Obstetrics & Gynecology, The Aga Khan University, Pakistan

ABSTRACT:
The presentation will focus on use of current best evidence in making surgical decisions about the care of the individual patient with Endometriosis. It will integrate the speaker's clinical expertise with the best available external clinical evidence from systematic research.

INVITED SPEECH

EVALUATION OF OVARIAN RESERVE FUNCTION

HONG YE
Institute of Genetics and Reproduction, Chongqing Obstetrics and Gynecology Hospital, Chongqing, China

Oral Presentation

OP-002

GENITAL TRACT ANOMALIES

SEXUAL AND FUNCTIONAL OUTCOME OF SHEARES VAGINOPLASTY IN 16 PATIENTS WITH MAYER-ROKITANSKY-KÜSTER-HAUSER SYNDROME

JINGXIN DING, QI ZHOU, XUYIN ZHANG, KEQIN HUA
The Obstetrics and Gynecology Hospital of Fudan University, China

OBJECTIVE: To evaluate the Sexual and functional outcome of of Sheares vaginoplasty in treatment of Mayer-Rokitansky-Küster-Hauser(MRKH) syndrome.

METHODS: This a prospective observational study. Sixteen cases with MRKH syndrome who underwent Sheares vaginoplasty from September 2014 to June 2015 in our hospital were enrolled in this study. Patients and surgical data, follow-up information and Female Sexual Function Index (FSFI) scores were recorded and analyzed.

RESULTS: All of the patients were completed the surgery successfully without complication or transfusion. The operative time was 18.00-59.00(41.38±8.97) min, the blood loss was 10.00-200.00(66.25±48.23) ml, and the hospitalization time after operation was 8-11(9.43±1.42) days. After six months of operation, normal external genitalia, along with a smooth, moist, soft and elastic vaginal wall with a normal vaginal mucosa, were found in these patients. The width of neovagina were 2.7cm and the length of squamous epithelialization of the neovagina was 5.00-8.50(6.90±1.12)cm. 12 of the patients had a sexual partner and became sexually active. The FSFI score was 23.1-26.2(25.8±1.2).

CONCLUSIONS: Sheares vaginoplasty provides good anatomic and functional results, and provides an alternative choice of treatment for women with MRKHS.

KEY WORDS: Mayer-Rokitansky-Kuster-Hauser(MRKH) syndrome , Sheares vaginoplasty

OP-003

NEW INSTRUMENTATION OR TECHNOLOGY

ROBOTIC ASSISTED RECONSTRUCTION OF CERVIX AND VAGINA BY SIS GRAFT AND FUSION OF HEMI-UTERUS

KEQIN HUA, YISONG CHEN, YING ZHANG
Obstetrics and Gynecology Hospital Fudan University, China

OBJECTIVE: To summarize and analyze clinical characteristics and robotic surgery features of congenital complete vaginal and cervical atresia.

METHODS: Clinical observation and follow-up of 7 months of 4 patients diagnosed of congenital complete vaginal and cervical atresia. Patients underwent robotic assisted reconstruction of cervix and vagina by SIS (small intestinal submucosa, SIS) graft (Cook Medical ïSA) and/or fusion of hemi-uterus during 2015 in the Obstetrics and Gynecology Hospital of Fudan University, Shanghai, China.

RESULTS: Patient age was 12 to 17, the average was 13.75 ± 2.2. All the patients complained of severe periodic pain of abdomen. Mammary development and serum sex hormone were within normal range. 1patient has single kidney. The diagnosis was made according to clinical characteristics, physical examination, MRI and classified by ESHRE/ESGE system. 2 patients had hemi-uterus (U4C4V4). All 4 patients underwent reconstruction of cervix and vagina by SIS graft. Fusion of hemi-uterus was performed in the 2 patients of U4C4V4. All patients have hematometra more than 4cm. The average operation time was 232.5 ± 89.2 min, average blood loss was 225.0 ± 95.7ml. After surgery all patients have normal menstruation without pain. They insist to wear vaginal mould 24 hours per day. The average follow up was 7 months. The average length of the vagina was 8.9 ± 0.3cm verage width was 3 ± 0 cm.

CONCLUSIONS: Congenital complete vaginal and cervical atresia is rare. Some patient has urinary system abnormality. Robotic assisted reconstruction of cervix and vagina by SIS graft and/or fusion of hemi-uterus is feasible and safety. However more cases should enroll and additional studies are required.

KEY WORDS: Congenital complete vaginal and cervical atresia , Robotic surgery , SIS graft

OP-006

HYSTEROSCOPY, ENDOMETRIAL

ABLATION AND STERILIZATION

HYSTEROSCOPY FOR TUBAL FACTOR OF INFERTILITY

ATEF M. DARWISH
Obstetrics and Gynaecology, Faculty of Medicine, Assiut University, Egypt

OBJECTIVE: Tubal factor of infertility represents around one quarter of infertility. Unfortunately, the commonly available diagnostic and therapeutic tools of tubal factor don't cover all aspects of the fallopea tube. The interstitial and isthmic parts are well visualized by hysteroscopy.

METHODS: In this lecture, diagnostic as well as therapeuticapplications of hysteroscopy will be discussed and demonstrated.

CONCLUSIONS: A novel use of hysteroscopy for tubal patncy will be addressed.

KEY WORDS: Hysteroscopy , Tubal factor , Patency

OP-007

GENITAL TRACT ANOMALIES

COMPLETE ANDROGEN INSENSITIVITY SYNDROME AND ANTI-MÜLLERIAN HORMONE LEVELS BEFORE AND AFTER LAPAROSCOPIC GONADECTOMY

MAKI KUSUMI, MAKIKO MITSUNAMI, MOMO NOMA, FUMIKO MATSUMURA, CHISA TABATA, SEIJI TANAKA, NORIKO WATANABE, TAKAKO KUROSAWA, TOSHIHIRO FUJIWARA, OSAMU TSUTSUMI
Sanno Hospital / Center for Human Reproduction and Gynecologic Endoscopy, Japan

OBJECTIVE: Complete androgen insensitivity syndrome (CAIS) is caused by an X-linked androgen receptor (AR) mutation that results in a female phenotype of external genitalia and appearance but testes as the gonads instead of ovaries. Anti-Müllerian hormone (AMH) level is known to be very high in patients with CAIS; AMH is secreted by Sertoli cells and testosterone suppresses the secretion. We examined the serum level of AMH before and after laparoscopic gonadectomy (testicles) . We report 2 cases with some literature review.

METHODS: We experienced the cases of two sisters with CAIS, and examined the serum level of AMH before and after laparoscopic gonadectomy (testicles). We also examined other pathological status of CAIS.

RESULTS: Their operation time was about 30 minutes and blood loss was very small. They were discharged from hospital two days after surgery. Pathological examination revealed immature testes and no testicular malignancy. Their serum AMH was very high before gonadectomy and dramatically decreased after gonadectomy like testosterone and estrogen.

CONCLUSIONS: AMH should be helpful in the differential diagnosis of AIS and abnormal sex differentiation. Although successful gonadectomy can be proven only by measuring the levels of testosterone and estrogen, AMH levels can aid in confirmation. AMH is secreted only by Sertoli cells. Decrease of AMH levels to below measurable levels indicates successful gonadectomy. In both cases, serum AMH level was less than 0.1 ng/mL after gonadectomy. Prophylactic gonadectomy should be performed after puberty as a minimally invasive laparoscopic surgery. Our report indicates that serum AMH level is useful in the diagnosis and follow-up of CAIS.

KEY WORDS: complete androgen insensitive syndrome , Anti-Müllerian hormone , prophylactic laparoscopic gonadectomy

OP-010

LAPAROSCOPIC SURGERY

USEFULNESS OF HEMOSTATIC AGENTS FOR MINIMIZING OVARIAN DAMAGE DURING LAPAROSCOPIC CYSTECTOMY FOR ENDOMETRIOSIS

CHAHIEN CHOI, WOO YOUNG KIM
Kangbuk Samsung Hospital, South Korea

OBJECTIVE: To evaluate the impact of topical hemostatic agents and bipolar coagulation during laparoscopic ovarian endometriotic cyst resection on ovarian reserve by comparing the rate of decrease in anti-Müllerian hormone (AMH).

METHODS: Prospective data collection from 98 reproductive-aged women, aged 19-45, who underwent laparoscopic ovarian cystectomy was conducted from December 2012 to April 2016 at three institutions, Kangbuk Samsung Hospital, CHA Gangnam Medical Center, Seoul, Korea and National Health Insurance Service Ilsan Hospital, Korea. Patients were divided into two groups either using a topical hemostatic agent or bipolar coagulation for hemostasis; preoperative and 3-month postoperative AMH levels were checked and the rate of decrease of AMH was compared.

RESULTS: Fifty-three patients were surgically treated with bipolar coagulation and 45 were treated with topical hemostatic agents. Baseline demographics were similar in the two groups and preoperative AMH levels showed no significant differences (4.3[0.6 –12.5] vs. 4.1[0.2 –13.09], p=0.756). There were no adverse events intra- or post-operatively in either group. AMH was significantly decreased in both groups 3 months postoperatively; however, the rate of decrease in the bipolar group was greater than the hemostatic agent group. (41.2% [IQR 19.25 –57.6] vs. 16.1% [IQR 9.6 – 43.8], p=0.008)

CONCLUSIONS: Hemostatic agents may be a safe new alternative for preservation of ovarian reserve after laparoscopic ovarian cystectomy for endometriosis.

KEY WORDS: Endometriosis , Hemostatic agent , Laparoscopic cystectomy

OP-011

LAPAROSCOPIC SURGERY

SAFE CONTROLLED ENTRY WITH THE VERESS NEEDLE AT LAPAROSCOPY

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OBJECTIVE: Creation of the pneumoperitoneum is an essential step at laparoscopy. The Veress Needle has been the standard instrument for primary entry into the abdomen to create the pneumoperitoneum. Various techniques have been used to introduce the Veress Needle since the advent of laparoscopy. The author has developed his own technique for the safe entry of the needle into the abdomen in both the scarred as well as the unscarred abdomen and has been using the same technique since 1990.

METHODS: The skin incision is always vertical be it intraumbilical (in an unscarred abdomen) or at Lee Huang point (in a scarred abdomen or for large uteri), the length of which should be adequate enough for smooth passage of the primary trocar cannula. The umbilicus is the thinnest part of the abdomen even in the obese patient. After the adequate skin incision is performed, the subcutaneous fat is dissected using the Mangeshikar Tissue Forceps. The anterior rectus sheath is identified and held using a pair of the forceps. Lifting this sheath vertically will lift the peritoneum with it. The Veress Needle is held like a pen vertically and pushed in using the wrist muscles, feeling two "POPS" in the intraumbilical portal or three POPS at the Lee Huang portal. Confirmation of safe position of the Veress Needle is done using the gas manometry technique.

RESULTS: 20284 women underwent laparoscopy between January 1990 till December 2015 by the author. Closed laparoscopy was performed in all of them. The Veress Needle was introduced in a vertical manner in all patients irrespective of the body weight. The umbilicus was the port of entry in patients with an unscarred abdomen and in patients with a uterus less than 20 weeks size uterus (N=13101, 64.6%). In patients with previous abdominal surgery or patients with uterus more than 20 weeks size, the Lee Huang portal was used for introducing the Veress Needle (N=7183, 35.4%). Whilst the introduction of the Needle at the Lee Huang point was successful in all patients, there were 9 failures (0.068%) in the group where the umbilicus was the port of entry. Failure was due to failed access (6 cases) and due to periumbilical adhesions (3 cases). The Palmers point (4 cases) or Lee Huang point (2 cases) or open Hasson Technique (3 cases) was then utilised to gain entry at Laparoscopy.

CONCLUSIONS: Elevation of the anterior rectus sheath using the Mangeshikar Tissue forceps lifts the peritoneum along with the sheath and increases the distance between the abdominal wall and the omentum, bowel and retroperitoneum. Vertical introduction of the Veress Needle is the shortest and safest route of entry into the abdomen at laparoscopy.

KEY WORDS: Safe entry , Pneumoperitoneum , Veress Needle

OP-012

ENDOMETRIOSIS

NEW INTERFACE IN THE SURGICAL TREATMENT OF DEEP INFILTRATING ENDOMETRIOSIS: A NUMERICAL MULTI-SCORING SYSTEM FOR ENDOMETRIOSIS

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OBJECTIVE: The numerical multi-scoring system of endometriosis (NMS-E) is the integrated assessment system to interpret the complicated and wide-ranging information about endometriosis and to direct optimal surgery and management. The purpose of this study was to evaluate its efficacy and accuracy.

METHODS: NMS-E integrates echo-graphic information with an internal examination utilizing a notational system based on a cubic image with numbers and marks, and consisting of four elements: 1) endometrial cyst size, 2) adhesions, 3) pain, and 4) uterine or peri-uterine disease. The NMS-E was used in 96 patients between 2012 and 2015. The following parameters were evaluated: 1) correlation between the NMS-E and r-ASRM) scores, 2) specificity, sensitivity, PPV, NPV, and accuracy of the adhesion score of NMS-E, 3) change in pain score before and after surgery, and 4) incidence of postoperative complications according to the surgical strategy based on the findings of the NMS-E.

RESULTS: The median age, body mass index, operative time, and blood loss was 35 y, 21.1 kg/m2, 183 min, and 20 mL, respectively. NMS-E score was well correlated with the r-ASRM score (0.622: P value=1.02E-11). The sensitivity, specificity, PPV, NPV, and accuracy of the adhesion score were 77.8%, 85.6%, 77.8%, 85.6%, and 82.6%, respectively. Pain scores at all assessed areas decreased significantly. The only postoperative complication seen was one case of mild ileus that spontaneously resolved.

CONCLUSIONS: NMS-E is a highly effective method to predict the extent and activity of endometriosis preoperatively and could become a new compass in the surgical treatment of deep infiltrating endometriosis.

KEY WORDS: deep infiltrating endometriosis , adhision , NRS

OP-013

ONCOLOGY

SEVEN-STEP METHOD FOR MANAGEMENT OF THE VESICOUTERINE LIGAMENT DURING LAPAROSCOPIC RADICAL HYSTERECTOMY: NOVEL A-SHAPED METHOD

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OBJECTIVE: In Japan, most gynecologic surgeons still perform the radical hysterectomy procedure for cervical cancer by laparotomy. However, use of minimally invasive laparoscopic surgery is increasing gradually. Laparoscopy, performed under specific situations, is susceptible to a unique set of complications, especially injury to the urinary tract. There have been several reports regarding effective methods for avoiding ureteral injury during an abdominal radical hysterectomy (ARH); however, there have been no similar methods yet reported for a laparoscopic radical hysterectomy (LRH). We describe here a novel and safer procedure for management of the vesico-uterine ligament (VUL) during LRH.

METHODS: After reviewing numerous surgical videos of LRH, we reemphasize the importance of identifying critical anatomical structures during the management of the VUL, and we established a new safety step.

RESULTS: During the management of VUL, we worked out a seven-step process to complete the procedure with a higher degree of safety. Step 1. Full dissection of the bladder downward; 2. Dissection of the uterine artery; 3. Dissection of the small vessels, including the superficial vesical vein between the ureter and uterine artery (in this novel so-called A-shaped pattern method, the capital A is composed of the ureter and uterine artery as the upright side angles, the horizontal bar is formed by the small vessels between the two); 4. Dissection of the cervicovesical vessels (complete division of the anterior VUL); 5. Dissection of the thin membrane which overrides the posterior VUL; 6. Identify Okabayashi's paravaginal space and open it; 7. Divide the posterior VUL.

CONCLUSIONS: This seven-step stylized method enables completion of the complex LRH procedure by managing the VUL more simply and safely.

KEY WORDS: cervical cancer , laparoscopic radical hysterectomy , vesico-uterine ligament

OP-014

UROGYN/PELVIC FLOOR DISORDERS/VAGINAL SURGERY

CLINICAL OUTCOMES OF LAPAROSCOPIC SACROCOLPOPEXY FOR PELVIC ORGAN PROLAPSE: A RETROSPECTIVE ANALYSIS OF 500 CASES FROM A SINGLE INSTITUTION

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OBJECTIVE: Laparoscopic sacrocolpopexy (LSC) is becoming a more popular alternative for pelvic organ prolapse (POP) repair in Japan in the recent years. This study aimed to evaluate the safety and efficacy of LSC.

METHODS: This is a retrospective study on all the LSC cases that were performed in Urogynecology center, Kameda Medical Center, Japan from January 2013 to March 2016. Medical records of all the patients were retrieved and details on operating time, estimated blood loss, perioperative complications, anatomical recurrence (postoperative POP-Q stage) rate and reoperation rate were assessed. Our general procedure of LSC used two pieces of polypropylene mesh placed on the vesico-vaginal and recto-vaginal space in which the dissection was extended to the level of the bladder neck and levator ani muscle. Subtotal hysterectomy was performed in almost all patients with uterus except in 39 women who chose to preserve their uterus. Additionally, multivariate analysis of risk factors for recurrence-free survival was performed using the Cox regression method.

RESULTS: Five hundred and ten patients who were diagnosed as POP (cystocele, rectocele, enterocele, uterine prolapse, vaginal vault prolapse) were included. The mean operating time and estimated blood loss were 236 min and 28.9ml. There were 2.7% perioperative complication rate and 1.0% severe complication rate (Clavien-Dindo grade). With a median follow-up of 12 months, anatomical recurrence rate was 8.3%, significant anatomical recurrence (stage) rate was 1.8% and reoperation rate was 1.2%. Body mass index??0, preoperative POP-Q stage??and estimated blood loss??0ml were found as independent risk factors for anatomical recurrence.

CONCLUSIONS: The present study demonstrated a relatively low complication rate, low significant anatomical recurrence rate and low reoperation rate. Therefore, LSC is a safe and effective surgical treatment for various types of POP.

KEY WORDS: Pelvic organ prolaspe , Laparoscopic sacrocolpopexy , polypropylene mesh

OP-017

ROBOTICS

EUMC'S EXPERIENCES OF ROBOTIC SINGLE-SITE SURGEY IN 300 CASES

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OBJECTIVE: To report 300 cases of successful Robotic Single-Site Surgery and to evaluate applicable range of Robotic Single-Site Surgery with the use of the Da vinci Si system regards to the feasibility and safety.

METHODS: From November 2014 to June 2016, 300 cases of Robotic Single-Site Surgery which was done 3 surgeons at Ewha Womans University Medical Center were retrospectively analyzed. These surgeries contain representative 3 kinds of surgery, hysterectomy, myomectomy, cystectomy, and others. We analyzed patient clinical characteristics and multiple surgical variables such as operation time, hemoglobin level change, estimated blood loss, weight, number, size, and location of each lesion, scar size, and healing time etc.

RESULTS: In EUMC, during 19 months, 97 cases of Robotic Single-Site Hysterectomy(RSSH), 91 cases of Robotic Single-

Site Myomectomy(RSSM), 82 cases of Robotic Single-Site Cystectomy(RSSC) and 30 cases of other robotic surgery were performed. The RSSH was applied to uterus up to the weight of 835g. Total operation time was 60-280 mins and Estimated blood loss was 20-500cc. The RSSM was applied to uterine myomas up to the numbers of 12, and the longest diameter of 12.8cm. The RSSM was successfully applicable to any types of myomas including subserosal type, intramural or intraligamentary type. Total operation time was 60-295 mins and Estimated blood loss was 10-600cc. The RSSC was applied to cysts such as endometrioma, deromoid cyst, serous cystadenoma and mucinous cystadenoma, up to the size of 14.8cm. Other robotic surgeries were salpingo-oophorectomy, variable pelvic tumorectomy and sacrocolpopexy. The largest mass of operated total cases was 24.8 cm sized fibroma.

CONCLUSIONS: By showing our successful surgeries, our study clearly support the safety and feasibility of the Robotic Single-Site Surgery in variable disease, such as myoma, adenomyosis, benign ovarian tumors, precancerous neoplasia of cervix, and POP and we show satisfactory surgical outcomes.

KEY WORDS: Robotic, Single-site, Surgery

OP-022

LAPAROSCOPIC SURGERY

LOWER URINARY TRACT SYMPTOMS BEFORE AND AFTER LAPAROSCOPIC SACROCOLPOPEXY IN 108 CASES OF PELVIC ORGAN PROLAPSE

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OBJECTIVE: Laparoscopic sacrocolpopexy (LSC) has been a gold standard procedure for pelvic organ prolapse (POP). Since the Japanese public insurance began to cover this procedure two years ago, the number of hospitals starting to perform this operation has rapidly increased. However the reported data on the anatomic and functional outcome after LSC is limited. In this study, we focused on lower urinary tract symptoms (LUTS) before and after LSC.

METHODS: Patients: One handred and eight patients underwent LSC betweem March 7th 2013 and October 31th 2015. Patients characteristics: Median(range) of patient's age was 61 (43-75), mean±SD of BMI was 21.9±2.1. Most descending part : anterior 73, middle 31,and posterior 4 Hysterectomy had been performed in 8 cases. LSC were conducted according to Watties's methods. Uterus was preserved in 15 cases. Subtotal hysterectomy was performed in 85 cases.(uterine preservation in 15 cases. subtotal hysterectomy in 85 cases). Anatomical outcome was assessed with POP-Q. LUTS assessment was made before and 3 months after LSC with OABSS, IPSS and ICIQ-SF. Uroflowmetry before and after LSC was also assessed.

RESULTS: Operating time was 223±66min. Amount of bleeding was 31.4±58.4gr. Residual urine volume more than 100ml were observed in 4 cases, but disappeared within a weak in all cases. Anatomical success rate was 99% 3 months after LSC. As for uroflowmetry, no significant difference was seen between before and after LSC. There is no significant difference in total score of OABSS (2.62 and 2.53). In total score(3.39) and QOL score(1.71) of ICIQ-SF after LSC were significantly lower than those before LSC (7.33 and 4.18 respectively). TVT procedures were needed in 7 cases after LSC.

CONCLUSIONS: Although Voiding symptoms improved and OAB symptoms did not change after LSC , stress urinary incontinence remained or become excerbated. So LSC had an influence on the LUTS symptoms. Further accumulation of data is necessary to examine the results of LSC in detail.

KEY WORDS: Laparoscopic sacrocolpopexy , Pelvic organ prolapse , functional outcome

OP-025

ONCOLOGY

SIMULTANEOUS SURGICAL PERFORMANCE OF LAPAROSCOPIC AND ROBOTIC-ASSISTED HYSTERECTOMY WITH LYMPHADENECTOMY IN ENDOMETRIAL CANCER

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OBJECTIVE: To compare operative time and surgical outcomes in the initial application of laparoscopic and robotic assisted hysterectomy in endometrial staging surgery.

METHODS: Laparoscopic or robotic assisted hysterectomy with lymphadenectomy were performed in the first 49 consecutive patients with endometrial cancer (FIGO stages Ia to IVb) from October 2010 to October 2015.

RESULTS: 29 patients received laparoscopic and 20 patients received robotic assisted staging surgery. Robotic-assisted hysterectomy was performed since the 7th case of the study. Pelvic lymphadenectomy was performed in all cases and para-aortic lymphadenectomy was established since the 6th case. Number of lymph nodes retrieved increased with operative sequence. In robotic-assisted hysterectomy, optimal number of pelvic nodes was achieved in the first case, and number of nodes retrieval was higher compared with laparoscopic hysterectomy (19 vs 14 nodes, $p < 0.01$). Operative time was longer in robotic-assisted hysterectomy with lymphadenectomy compared with laparoscopic hysterectomy with lymphadenectomy (295.2 vs. 205.6 min, $p < 0.01$). Operative time decreased significantly with operative sequence in robotic-assisted hysterectomy with lymphadenectomy, but not in laparoscopic hysterectomy with lymphadenectomy.

CONCLUSIONS: Laparoscopic and robotic assisted hysterectomy with lymphadenectomy provided similar perioperative outcomes. Lymph node dissection could be easier accomplished in robotic-assisted hysterectomy. In Laparoscopic hysterectomy with lymphadenectomy, operative time did not decrease with chronological order in order to maintain similar surgical quality as robotic surgery. For the beginners, concurrent use of robotic platform effectively optimized surgical outcomes of laparoscopic staging surgery in endometrial cancer patients.

KEY WORDS: endometrial cancer , laparoscopic staging surgery , robotic assisted staging surgery

OP-030

LAPAROSCOPIC SURGERY

THE TIME-FRAME SURGICAL TRENDS OF HYSTERECTOMY TYPES IN TAIWAN: A 15-YEAR NATION-WIDE FOLLOW-UP STUDY

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OBJECTIVE: With the advance of minimally invasive techniques, laparoscopic approach for hysterectomy has gained its popularity. This study aimed to investigate the time-frame surgical trends of hysterectomy types (abdominal, vaginal, laparoscopic, and subtotal) during the 3 time-frame period (1998–2002, 2003–2007, and 2008–2012) under the national health insurance (NHI) system in Taiwan.

METHODS: A retrospective analysis of data was conducted from Taiwan's National Health Insurance Research Database. A total of 329,438 women aged 20 years and older who underwent various types of hysterectomy during 1998–2012 were identified. The variables included surgical types, patient age, surgeon age, gender and surgical volume, as well as hospital accreditation, teaching status, geographic location and service volume. The chi squared and trend tests were used to examine the association between the variables studied.

RESULTS: During the period of 1998–2002, laparoscopic hysterectomy (LH) was 34.9%, total abdominal hysterectomy (TAH) was 53.2%, vaginal hysterectomy (VH) was 9.6%, and subtotal abdominal hysterectomy (SAH) was 2.3%, respectively. During 2008–2012, LH increased to 41.4%, TAH decreased to 43.6%, VH increased to 9.1%, and SAH increased 5.9%, which were similar to those during 2003-2007. During 2008-2012, hysterectomies were most commonly performed among patients aged 40–49 years (55.6%), male surgeons (86.1%), those aged ≥50 years (35.0%) and with high surgical volume (39.4%); as well as in medical centers (48.2%), and high service volume (36.4%). The predominance of male, high-volume surgeons, as well as high-volume hospitals decreased during 2008-2012, as compared with 1998-2002.

CONCLUSIONS: This follow-up study describes the increase in popularity of LH and SAH; and provides evidence of surgical trends and a paradigm shift for hysterectomy. This time-frame shift suggests LH has reached a plateau during periods of 2003-2007 and 2008-2012. Meanwhile, more female surgeons involved in the practice. The generalization of surgical skills and performance extended from high-volume surgeons and hospitals into median and low surgeons and hospitals. This may have a great influence on patients and healthcare providers.

KEY WORDS: laparoscopic hysterectomy , time-frame comparison , surgical trend

OP-031

LAPAROSCOPIC SURGERY

MY EXPERIENCE OF LAPAROENDOSCOPIC SINGLE-SITE SUBTOTAL HYSTERECTOMY

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OBJECTIVE: The strengths of surgical laparoscopy compared to laparotomy include shorter hospitalization, reduction in post-operative pain and adhesions, and better cosmetic outcomes. Since 2008, laparoendoscopic single-site surgery (LESS) has been used in order to offer additional cosmetic benefits and to further reduce post-operative morbidity. The aim of this study was to assess the feasibility of a LESS subtotal hysterectomy, as well as the benefits and the limitations of this technique.

METHODS: Retrospective series of 157 women managed between September 2011 and June 2016 at our university tertiary referral center by LESS subtotal hysterectomy for benign pathologies.

RESULTS: 155 of the 156 procedures were performed by LESS alone. Two conversions to classic laparoscopy were required for a ureter injury (1 case) or major pelvic adhesions (1 case). Postoperative complications was a subumbilical hernia and a low-grade sarcoma. Mean operative time was 49 minutes (35-192). Postoperative hospitalization was of 3 days in average.

CONCLUSIONS: LESS subtotal hysterectomy is safe and feasible.

KEY WORDS: laparoendoscopic single-site surgery , subtotal hysterectomy

OP-035

LAPAROSCOPIC SURGERY

A STUDY OF THE RECURRENCE AND REOPERATION RATE OF UTERINE MYOMA AFTER LAPAROSCOPIC MYOMECTOMY AND THE RECURRENCE PREVENTION

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OBJECTIVE: Uterine myoma is a common gynecologic disease. Myomectomy is selected to preserve the uterus, and with recent advances in laparoscopic technology, laparoscopic myomectomy (LM) has become a common treatment. However, myoma can recur after LM. This retrospective study examines the recurrence and reoperation rate and the possible risk factors for recurrence and the recurrence prevention.

METHODS: Between 1995 and 2015, 592 patients who underwent LM at a single institution were followed from the

postoperative 6th month to the 5th year semiannually for recurrence by ultrasound. Post-LM recurrence and reoperation rates were investigated as well as the cumulative recurrence and rate rates at 1, 3, and 5 years postoperatively. And we examined Cox proportional hazards regression analysis. Recently we use the laparoscopic ultrasound from 2015. We research the myoma by the laparoscopic ultrasound before finished operation. We remove the detected myomas.

RESULTS: Cumulative post-LM recurrence rates were 5.0%, 28.5%, and 51.7% at postoperative years 1, 3, and 5, respectively. And Cumulative post-LM reoperation rates were 1.3% and 4.7% at postoperative years 3, and 5, respectively. There is the significant difference in number of myomas by cox proportional hazards regression analysis.

CONCLUSIONS: Risk of post-LM recurrence increases over time. The riskiest factor is number of tumors. We think that we can decrease to recurrence rate by the laparoscopic ultrasound.

KEY WORDS: Laparoscopic myomectomy , recurrence , reoperatio

OP-036

UROGYN/PELVIC FLOOR DISORDERS/VAGINAL SURGERY

LAPAROSCOPY OF NON-MESH GENITAL SUSPENSION (LONG'S) PROCEDURE FOR UTERINE PRESERVATION

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OBJECTIVE: To evaluate the surgical efficacy and safety of laparoscopic uterine suspension procedure.

METHODS: From October 2014 through April 2016, 25 consecutive women with isolated uterine prolapse stage II or greater were referred for Long's op. Concomitant midurethral sling – MiniArc were performed in one woman with current SUI. Before and 6 months after surgery, assessment included urinalysis, pelvic examination with POP-Q system, UDS, personal interview to identify LUTS, OABSS, UDI-6, IIQ-7, ICI-Q, and POPDI-6.

RESULTS: We excluded 5 patients due to inadequate or loss of follow-up. As a result, twenty women were included. Mean ages was 57.9 years. Success rate reached 95 %, and no serious complications was found. POP-Q assessment including Aa, Ba, C, Ap, Bp, and total vaginal length showed significant improvement after surgery (P< 0.05).

CONCLUSIONS: For women experiencing isolated uterine prolapse, Long's procedure is an effective method of repositioning the uterus and relieves related symptoms.

KEY WORDS: Laparoscopy , Uterine suspension , Mesh

OP-037

ROBOTICS

IN-BAG KNIFE MORCELLATION FOR MYOMA EXTRACTION IN ROBOTIC SURGERY

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OBJECTIVE: To introduce a novel method for myoma retrieval in robotic myomectomy which avoids the use of power morcellation and prevents intra-abdominal spillage

METHODS: Design: A retrospective study. Setting: Medical center. Patient: Patients with symptomatic uterine myomas, aged 20 and above. Intervention: After the enucleation of uterine myoma, an endobag was introduced via the accessory port. With the use of robotic arm, the myoma was placed inside the bag along its longitudinal axis. The opening of the bag was secured and the robot undocked, followed by in-bag knife morcellation of the myoma via the umbilical incision wound with the aid of an Alexis wound retractor. After the retrieval of myoma, the integrity of the endobag was checked by instillation of water.

RESULTS: A total of 12 patients with symptomatic uterine myomas were enrolled in this study, with the median largest diameter of uterine myoma about 10 cm. The median operative time was 120-300 minutes, which included 6±3 minutes for placement of myoma into the endobag and 35-50 minutes of in-bag knife morcellation. The median amount of intraoperative blood loss was 250 mL and the average wound size was 3.5-4.5cm. No endobag rupture was noted during the morcellation

CONCLUSIONS: In conclusion, the use of this novel method for myoma extraction in robotic surgery saves the need for electric morcellation and is not associated with longer operative time or risk of intra-abdominal spillage.

KEY WORDS: endobag , robotic surgery , in-bag knife morcellation of the myoma

OP-039

LAPAROSCOPIC SURGERY

TRANSVAGINAL NATURAL-ORIFICE TRANSLUMINAL ENDOSCOPIC SURGERY (NOTES) IN ADNEXAL PROCEDURES

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OBJECTIVE: To evaluate the feasibility and safety of transvaginal natural-orifice transluminal endoscopic surgery (NOTES) in adnexal procedures

METHODS: From May 2012 to May 2015, 57 consecutive patients underwent transvaginal NOTES of the adnexa, including enucleation of ovarian tumor in 26 cases, unilateral salpingo-oophorectomy in 24 cases, bilateral salpingo-oophorectomy in 4

cases, tubal sterilization in 3 cases, unilateral salpingectomy in 1 case and chromotubation in 2 cases.

RESULTS: The mean (SD; 95% CI) age of the patients was 44.6 (13.3; 41.1–48.0) years old, and their body mass index was 22.9 (4.1; 21.8–23.9) kg/m2. Transvaginal NOTES was successfully performed in 56 patients (98.25%). One patient underwent concurrent myomectomy and 4 patients had hysteroscopy for diagnosis, polypectomy, or adhesiolysis of intrauterine adhesions. The mean (SD; 95% CI) size of adnexal mass was 6.5 (2.2; 5.9–7.1) cm; in 8 patients (14.55%) the size of adnexal mass was <5cm, 44 patients (80%) was around 5–10cm, and 3 patients (5.45%) was >10cm. Operative time was 57.8 (27.6; 50.7–65.0) minutes, with blood loss of 16.4 (19.3; 11.4–21.4) mL. One NOTES procedure failed and was converted into a laparo-endoscopic single-site surgery because of distended colon, and a body mass index of 33.7 kg/m2. One patient (1.75%) had postoperative pelvic inflammatory disease, and recovered uneventfully with conservative treatment.

CONCLUSIONS: Purely transvaginal NOTES in adnexal procedures appears to be a feasible and reproducible surgical technique.

KEY WORDS: Transvaginal Natural-Orifice Transluminal Endoscopic Surgery (NOTES) , Adnexal surgery

OP-041

LAPAROSCOPIC SURGERY

ROLE OF 3MM INSTRUMENT IN LAPAROSCOPIC UTERINE ARTERY LIGATION

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OBJECTIVE: The uterine vessels comprised of 95% of blood supply of uterus and if not effectively ligated during hysterectomy, blood loss could be abundant. We would like to share our experience of the use of 3mm laparoscopic forceps (Endo Relief) as a replacement for conventional 5mm laparoscopic forceps in laparoscopic subtotal hysterectomy.

METHODS: 20 patients diagnosed with either myoma or adenomyosis, aged between 40-49 years old, with BMI 23-33 kg/m2 were enrolled in this retrospective study. With 4-port technique, 1x 3mm, 1 x 5mm, 2 x 10 mm trocars were used. We dissect along the triangular area formed by the round ligament, ovarian vessel and external iliac vessel, and traced retrogradely along the terminal branch of internal iliac artery to find the origin of uterine vessel. The uterine artery was identified and ligated with either intracorporeal ties, metal clips or hem-o-loks.

RESULTS: The median intra-operative blood loss was 100-300mL, with uterine weight ranged between 150-500gm. The duration for uterine artery ligation was no longer than 10 minutes for each side.

CONCLUSIONS: 3mm laparoscopic forceps is as effective as conventional 5mm laparoscopic forceps in laparoscopic uterine artery ligation. However, due to the lack of trocar, its maneuver is less smooth and takes time for surgeons to adapt to its use.

KEY WORDS: 3mm Instrument , Uterine artery ligation , laparoscopy

OP-042

OTHERS

IS BLADDER TRABECULATION DETECTED BY CYSTOSCOPY A SIGNIFICANT FINDING IN PATIENTS WITH PREOPERATIVE OVERACTIVE BLADDER SYMPTOMS AFTER MID-URETHRAL SLING?

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OBJECTIVE: Bladder trabeculations have been reported to be related to bladder outlet obstruction in women, but the clinical correlation of trabeculation in women with lower urinary tract symptoms is still unclear. The purpose of this study was to investigate whether bladder trabeculation is a significant finding in patients with preoperative overactive bladder symptoms undergoing mid-urethral sling for the treatment of stress urinary incontinence.

METHODS: We retrospectively evaluated 56 patients with urodynamics stress incontinence (USI), who underwent trans-obturator mid-urethral sling (Obtryx® Sling and Advantage™) in a tertiary hospital between 2015 and 2016. All patients received evaluations, including structured urogynecological questionnaires and pelvic organ prolapse quantification examination before and 3 months after surgery. One-hour pad test and urodynamic testing were performed before and 3 months postoperatively. We also performed cystoscopy when mid-urethral sling for detecting bladder injury routinely and recorded the severity of trabeculations. Patient demographics, lower urinary tract symptoms and urodynamic results were analyzed between USI with and without trabeculations.

RESULTS: We divided these patients into USI with and without trabeculations groups. 19 patients (33.9%) had bladder trabeculations. The severity of trabeculations are grade 1(13/19=68.4%), grade 2(4/19=21.1%), and grade 3(2/15=10.5%). The USI with trabeculations group had higher ratio of frequency (P=0.032) and more severe cystocele (P=0.047). Both urodynamic studies before and 3 months after surgery showed higher residual urine in the USI with trabeculations group than USI without trabeculations. However, there was no significant difference in the Urogenital Distress Inventory-6, and the Incontinence Impact Questionnaire-7 between these two groups.

CONCLUSIONS: Our results demonstrated that the severity of trabeculations are associated with frequency and incomplete bladder emptying, and more severe cystocele.

KEY WORDS: mid-urethral sling , overactive bladder symptom , trabeculation

OP-048

UROGYN/PELVIC FLOOR DISORDERS/VAGINAL SURGERY

PREDICTORS FOR PERSISTENT URODYNAMIC STRESS INCONTINENCE (POUSI) FOLLOWING EXTENSIVE TRANSVAGINAL PELVIC RECONSTRUCTIVE SURGERY (PRS) WITH AND WITHOUT MID-URETHRAL SLING (MUS)

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OBJECTIVE: The objective of this study was to identify the predictors for persistent urodynamic stress incontinence (POUSI) in women following extensive pelvic reconstructive surgery (PRS) with and without midurethral sling (MUS).

METHODS: 1017 women who underwent PRS surgery from January 2005 to December 2013 were enrolled. Out of 1017 women, 349 USI who had POP stage ??III in which 209 underwent concomitant MUS while another 140 women had PRS only. Inclusion criteria were prolapse POP stage II and USI which was confirmed by urodynamic study. Exclusion criteria were urodynamically continent. Standard pre-operative and post-operative urogynecological evaluation were performed. Urodynamics was performed with the prolapsed reduce pre-operatively & post-operatively at 6 months to 1 year. Surgeries performed include vaginal hysterectomy with TVM where indicated, sacrospinous fixation (SSF) and preservation of the uterus was considered in young women. The TVM types include Perigee, Avaulta-A, Prolift-T and Elevate-A. Concomitant mid-urethral sling (MUS) operation performed include TVT or TOT. The primary outcome measure is the incidence of POUSI at 6 months to 1 year post-operatively.

RESULTS: 64.3% (90/140) women who underwent PRS without MUS developed POUSI compared to 10.5% (22/209) developed POUSI in those who had concomitant MUS. Those with concomitant MUS or PRS alone were at higher risk of POUSI if they had overt USI; 2.2 versus 4.7 times (p=0.014 and p<0.001), MUCP < 60cm H2O; 5.0 versus 5.3 times (p<0.001 and p<0.001) and FUL < 2 cm; 5.4 versus 3.9 times (p<0.001 and p<0.001). Parity ³ 6 were 3.9 times (p<0.001) and Prolift-T were 3.1 times (p<0.001) at higher risk of POUSI in those with concomitant surgery. Perigee and Avaulta-A seemed to be protective against POUSI in those without MUS. Secondary surgeries of MUS were offered to 13.3% (12/90) of women and 13.6% (3/22) with POUSI who had had no MUS and MUS respectively. In those 12 and 3 women who had secondary surgery; 7 and 2 had had overt USI prior to PRS.

CONCLUSIONS: Overt USI with advanced POP together with low MUCP and FUL value have higher risk of developing POUSI. Therefore, counseling to these women is worthwhile whilst considering the type of mesh used. Women with parity ³ 6 with overt USI and advanced POP undergoing PRS requires pre operative UDS which should include UPP examination.
KEY WORDS: persistent urodynamic stress incontinence (POUSI) , transvaginal pelvic reconstructive surgery (PRS) , mid-urethral sling (MUS)

OP-050

UROGYN/PELVIC FLOOR DISORDERS/VAGINAL SURGERY

PREDICTORS FOR DE NOVO STRESS URINARY INCONTINENCE FOLLOWING EXTENSIVE PELVIC RECONSTRUCTIVE SURGERY

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OBJECTIVE: The aim of this study was to look for possible predictors preoperatively for the development of de novo stress urinary incontinence (dSUI) in urodynamically continent women who underwent pelvic reconstructive surgery (PRS).

METHODS: 1017 women who underwent POP surgery from January 2005 to December 2013 were enrolled. Out of 1017, 637 continent women were fulfilled the inclusion criteria. We excluded women who had USI either occult or overt, DO, neurogenic bladder-voiding dysfunction, and previous anti-incontinent surgery. Preoperative evaluation comprised of detail medical history, physical examination, UC and multichannel urodynamics (UDS). The UDS done with prolapse reduction. Type of TVM used included Prolift Anterior and Posterior (Prolift T), Perigee System, Elevate Anterior/Apical system (Elevate-A) and Avaulta Anterior (Avaulta-A) system. The evaluations included detailed history taking, quality of life questionnaires, vaginal examinations, 3 days bladder diary and perineal ultrasonographic urethrocystography. The post operative urodynamics were performed at 6 months to 1 year postoperatively. Primary outcome measure was the development of de novo SUI at 6 months to 1 year post operation.

RESULTS: 11% of 637 women developed post-operative dUSI at one year follow-up. 140 (22%) of patients do not have TVM during the surgery, among which 7.9% develop dUSI. Significantly high incidence of dUSI were noted in patient who has had TVM surgery with Prolift T and Elevate-A system. The incidence rates were 26.3 % and 28.1% respectively. Perigee System and Avaulta A dUSI incidence were 6.3% and 5.7% respectively. Prolift and Elevate system both contributes as a factor for developing dUSI with p value < 0.001. Women with age more than 66 year old were 2.86 times (p =0.14) and more than 90% of patients who had dUSI were post menopause. DM were 2.18 times (p=0.002), certain type of transvaginal mesh procedure were 3.5 times (p < 0.001), MUCP < 60 mmH20 were 4.65 times (p<0.001)) and FUL < 2cm were 3.48 times (p<0.001) more at risk of developing dUSI. Prolift and Elevate system both contributes as a factor for developing dUSI with p value < 0.001.

CONCLUSIONS: Continent women with advance POP > 66 years suffering from DM with low MUCP and FUL value during preoperative urodynamic evaluation have higher risk of developing dSUI therefore we suggest counselling these women for concomitant pelvic reconstructive surgery and anti incontinent surgery.

KEY WORDS: de novo stress urinary incontinence (dSUI) , pelvic reconstructive surgery (PRS).

OP-051

LAPAROSCOPIC SURGERY

TOTAL USE OF LIGASURE SEALING DEVICES TO SPEED LESS LAVH FOR PATIENTS WITH A LARGE UTERUS: A COHORT STUDY

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OBJECTIVE: To perform laparoendoscopic single site surgery (LESS) laparoscopy-assisted vaginal hysterectomy (LAVH) is difficult and time-consuming for women with a large uterus, because of potential problems in hemostasis, cutting and suturing during laparoscopic and vaginal portions of the surgery. We describe total use of LigaSure sealing devices during lapsroscopic and vaginal portions and investigate its effect to speed LESS LAVH and the operative outcomes.

METHODS: This cohort study was conducted in an university teaching hospital, enrolling 404 vagina-delivered patients with a large uterus (due to benign uteirne tumors) who underwent LESS LAVH totally with ligasure sealing devices (ligasure group, n=139), with bipolar instruments (bipolar group, n=124) and with scissors plus suturing (sutureing group, n=141). For patients in these three groups, standard procedures of LESS LAVH were performed to achieve hemostasis and cutting of tissues with the use of ligasure, bipolar, and scissors plus suturing respectively. All specimens were removed vaginally, and the peritoneum and vaginal wall were closed with 1-0 vicryl.

RESULTS: For patients in the ligasure, bipolar, and suturing groups, the average weight of specimen was 482, 445, and 467 gm (p=0.687), the average blood loss was 82, 241, and 280 mL (p<0.001) and the operative time was 65.2, 150.4 and 230.9 minutes (p<0.001), respectively. There were no significant differences in the incidence of complications (0.7% vs. 1.6% vs. 1.4%, p=0.549), but significant differences in conversions to laparotomy (0.7% vs. 3.2% vs. 3.5%, p=0.042) and days of hospitalization (2.3 vs. 3.9 vs. 4.6, p=0.022). Comapared with the suturing group, logistic regression analysis revealed that the ratios of conversion to laparotomy (OR=0.261; 95% CI=0.124–0.567) were much lower in the ligasure group; the risk of complications was comparable (OR=0.735; 95% CI= 0.328–1.112).

CONCLUSIONS: Total use of LigaSure sealing devices can speed LESS LAVH for patients with a large uterus, with lesser blood loss, lower rate of conversion to laparotomy and shorter hospital stay.

KEY WORDS: laparoendoscopic single site surgery (LESS) , laparoscopic-assisted vaginal hysterectomy (LAVH) , LigaSure

OP-056

UROGYN/PELVIC FLOOR DISORDERS/VAGINAL SURGERY

PREDICTORS FOR VOIDING DYSFUNCTION FOLLOWING EXTENSIVE PELVIC RECONSTRUCTIVE SURGERY

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OBJECTIVE: The aim of this study was to identify the preoperative risk factors of developing post-operative voiding dysfunction (PVD) among women who had extensive pelvic reconstructive surgery (PRS) for pelvic organ prolapse (POP).

METHODS: 1425 women who underwent POP surgery from January 2006 to December 2014 were enrolled. Inclusion criteria were prolapse POP-Q stage III with or without transvaginal mesh (TVM). We excluded women who have incomplete pre-operative data. Standard pre-operative and post-operative urogynecological evaluation were performed. Investigations included urinalysis, 1-h pad test and multichannel urodynamic evaluation. Urodynamics was performed with the prolapsed reduce. Urodynamics was performed between 6 months to 1 year post-operatively. The definition on PVD was post-void residuals (PVR) > 50ml or 20% of post-void and/ or reported incomplete micturition in POPD-6 Question 5 with answer 3 (moderate) and 4 (quite a bit).

RESULTS: Among 1425 women, 54 were excluded due to no post-operative UDS data. 1017 of 1371 (74.2%) included in this study had TVM and 247 (18%) had concomitant MUS. 380 (27.7%) of them had pre-operative voiding dysfunction of which 9.7% (37/380) had persistent PVD. 991 (72.3%) had normal pre-operative voiding dysfunction of which 1.1% (11/991) had de nova PVD. The overall incidence of PVD was 3.5% (48/1371). Those with concomitant MUS were at higher risk of developing PVD; OR: 3.12 p<0.001). The DM, pre-operative Dmax ? 10 cmH2O and PVR ≥ 200 ml hold a significant higher risk of developing PVD with OR: 3.07, 1.87 and 2.15 respectively. Age, Parity, BMI, Menopause, Uterus preserve, type of TVM used and FUL were not found to be related to the developing of PVD.

CONCLUSIONS: Diabetes mellitus, concurrent MUS surgery, pre-operative Dmax 10 cmH2O and post-void residual urine ≥ 200 ml were the risk factors for patients with advanced POP to develop post-operative voiding dysfunction after pelvic reconstructive surgery. Therefore, counseling these women is worthwhile while considering the pelvic reconstructive surgery.

KEY WORDS: pelvic reconstructive surgery (PRS) , pelvic organ prolapse (POP)

OP-057

UROGYN/PELVIC FLOOR DISORDERS/VAGINAL SURGERY

5-YEARS RETROSPECTIVE FOLLOW UP OF THE EFFICACY OF PELVIC ORGAN PROLAPSE SURGERY WITH OR WITHOUT MEST OF CHINA MEDICAL UNIVERSITY HOSPITAL IN TAIWAN

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OBJECTIVE: Back ground: Ever since the issue of mesh warning in the repair of pelvic organ prolapse patient, urogynecologists

have been cautious regarding its application. Some refer back to traditional non-mesh method, while the others continue its usage. In this most recent 5-years period follow up of mesh and non-mesh patient can give us more evident of justification of mesh role in POP surgery. Objective: We will be assessing a short-term (5 years) follow up outcomes of patients with mesh repaired, repaired with mesh and suspension, and repaired with suspension alone.

METHODS: 121 patients between 2011~2015 from our hospital were analyzed according to their age, parity, BMI, mesh, non-mesh, incontinence status. Assessment of their operation outcomes were compared to their individual preoperation variables.

RESULTS: Preliminary data showed the groups with mesh application have a better prognosis objectively and subjectively.

CONCLUSIONS: A 5-years post-operation follow up showed patients with mesh application have a better outcome than the groups with mesh and suspension, and suspension alone, respectively.

KEY WORDS: pelvic organ prolapse surgery , mesh repaired , suspension

OP-059

GENITAL TRACT ANOMALIES

COMPARISON OF SMALL INTESTINAL SUBMUCOSA GRAFT WITH SPLIT-THICKNESS SKIN GRAFT FOR CERVICOVAGINAL RECONSTRUCTION OF CONGENITAL VAGINAL AND CERVICAL APLASIA

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OBJECTIVE: What is the difference in vaginal-length gain and resumption of menstruation following cervicovaginal reconstruction using split-thickness skin (STS) graft versus small intestinal submucosa (SIS) graft for patients with congenital vaginal and cervical aplasia?

METHODS: This was a retrospective study of 26 women who were diagnosed with congenital vaginal and cervical aplasia with a functional endometrial cavity and underwent cervicovaginal reconstruction using STS or SIS grafts between January 2012 and October 2015 at the Obstetrics and Gynecology Hospital of Fudan University, Shanghai, China. Fifteen women underwent cervicovaginal reconstruction using SIS graft, and 11 women underwent cervicovaginal reconstruction using STS graft. Clinical characteristics, perioperative data, resumption of menstruation, vaginal stenosis, length of the neovagina, vaginal-length gain, stricture of the cervix and body image were postoperatively assessed.

RESULTS: At a median follow-up of 21 (2-46) months, all but one of the patients experienced relief of abdominal pain and resumed menstruation. Re-obstruction of the cervix occurred in only one patient in the SIS group. The SIS group reported significantly higher body-image scores and cosmetic satisfaction. Although the two groups had a similar vaginal length before surgery, the vaginal-length gain was significantly greater in the STS group (4.9 ± 1.7 cm in the SIS group versus 7.5 ± 0.7 cm in the STS group, p=0.004), and the neovagina length at 6 months post-operation was significantly shorter in the SIS group (6.5 ± 0.7 cm in SIS the group versus 8.0 ± 0.5 cm in the STS group, p< 0.0001).

CONCLUSIONS: Combined laparoscopic and vaginal cervicovaginal reconstruction using SIS or STS graft is a safe and effective treatment for preserving uterus function in women with congenital vaginal and cervical aplasia. However, SIS graft must still be improved to achieve satisfactory vaginal length.

KEY WORDS: cervicovaginal reconstruction , cervical aplasia , vaginal aplasia

OP-060

ROBOTICS

PERIOPERATIVE AND POSTOPERATIVE OUTCOME OF ROBOTIC ASSISTED TOTAL HYSTERECTOMY FOR EXTREMELY LARGE UTERUS COMPARED WITH MODERATE SIZE UTERUS

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OBJECTIVE: How large for a uterus is suitable and safely indicated for robotic total hysterectomy is still unknown. This study compares perioperative and postoperative parameters of robotic assisted total hysterectomy for large uterus(>500g) with moderate uterus(<500g). Herein, we intend to define largest uterine size indicated for robotic assisted surgery for total hysterectomy.

METHODS: A retrospective medical record of 447 patients who underwent robotic assisted total hysterectomy between December 2000 to December 2015 were reviewed. Apart from the need for multiparty and small uterine size for laparoscopic assisted vaginal hysterectomy, patients were all included regardless of parity. Patients with uterine size larger than 20 gestation weeks were excluded. Estimate of uterine weight by sonography(weight (gm) =Length x Width x Anterior-posterior diameter x 0.52) was first calculated. Patients were divided into two group by calculated uterine size; 36 patients with large uterus(>500g) and 411 patients with moderate uterus(<500g). The perioperative and postoperative course of two groups was compared. Largest uterine size for safely robotic surgery is defined.

RESULTS: There were no significant difference between two group in patient characteristics. Operation time, blood loss significantly increased in larger uterus group (operation time: mean, 170 minutes vs 128 minutes, P <0.01; blood loss: mean, 288 ml vs 128 ml, P <0.01). Perioperative complications increased with large uterus group (8.3 % vs 1.7%, P <0.01). One patient with uterus larger than sonographically 15.3 cm in long axis and 1196 gm in size was sent for subsequent laparotomy due to internal bleeding. Largest uterine size done robotically was sonographically 14.4 cm in long axis and 1113 gm in size.

CONCLUSIONS: In this large series, operation time, blood loss and complication rate are increased for large uterus. A preoperative sonographic uterus long axis 14 cm and estimate weight 1113 gm might be the largest limit of robotic assisted total hysterectomy. Judicious surgical planning for uterus larger than 500g with robotic total hysterectomy is needed.

KEY WORDS: Robotic assisted total hysterectomy , extremely large myoma

OP-061

REPRODUCTIVE ISSUES

FEASIBILITY OF ULTRASONOGRAPHIC PREDICTION OF UTERINE SCAR DEHISCENCE AND RUPTURE DURING PREGNANCY

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INTRODUCTION: Uterine rupture in subsequent pregnancy of women undergoing myomectomy is a great concern. Though in rare incidence, it causes catastrophic maternal and fetal complications. The aim of this study is to evaluate if 2-D or 3-D ultrasonography could offer clues in prediction of uterine scar dehiscence or rupture during pregnancy.

MATERIALS AND METHODS: Patients of uterine rupture in Change Gung Memorial Hospital were searched retrospectively from January 2005 to August 2016 with ICD code, but excluding those without prior uterine surgery or due to cesarean delivery. All included patients of uterine rupture were recorded and analyzed with gestational age, rupture site, neonatal outcomes, as well as pictures of the initial uterine surgery, and ultrasonograms at the postoperative, early gestational, and antepartal stages.

RESULTS: There are 9 patients included in the current series, with initial surgeries of laparoscopic myomectomy, laparoscopic adenomyomectomy, laparotomy myomectomy, and laparoscopic wedge resection of cornual pregnancy. The mean (±SD) gestational age at uterine rupture was 33.7±5.0 weeks, with mean interval between the previous surgery to pregnancy 40.2±39.6 months (range: 4-120 months). Patients with scars dehiscence or rupture were almost at wounds on fundus or cornus, and without attempt of tocolysis. Neonatal outcomes varied in accordance to the degree of prematurity, the promptness of rescue, and also the timeliness of diagnosis. Ultrasonograms detected a disproportionally thin wall in one patient, and a scar dehiscence before pregnancy in another patient, and both were on the fundal wounds of laparoscopic adenomyomectomy. Another patient who underwent 3-D ultrasonography follow-up after rupture-site repair during cesarean delivery showed significant scaring with decreased blood flow. However, other ultrasonograms taken before and during pregnancy showed integrity of uterine wall and offered no clue to the later uterine rupture.

CONCLUSION: Dehiscence or thin scar may be detectable by 2-D or 3-D ultrasonography in some cases; however, integrity shown at previous uterine scar before conception or in earlier gestational age cannot preclude the occurrence of uterine rupture at later trimesters. Prospective large-scale studies are required to explore more sensitive and effective ways for earlier ultrasonographic prediction and detection of uterine scar rupture.

Video Presentation

VP-001

HYSTEROSCOPY, ENDOMETRIAL

ABLATION AND STERILIZATION

SIMPLE AND VERY CONVENIENT TECHNIQUE FOR SUBMUCOUS MYOMECTOMY UNDER DIRECT TRANSCERVICAL RESECTOSCOPE OBSERVATION

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OBJECTIVE: Introduction The transcervical resectoscope (TCR) is a surgical instrument that is useful for observing the uterine cavity and resecting intrauterine tumors, such as a submucous myoma (SMM). With transcervical resection, safe grasping of an SMM with forceps and its complete resection under transabdominal ultrasound (TAUS) guidance is not always easy.

METHODS: Case Report The TCR (Olympus, Tokyo, Japan) was set up and revealed a 25-mm SMM with a small base arising from the left, lateral, posterior, mid-portion of the uterus, between three and six o'clock. The surgeon grasped the uterus at twelve o'clock with Tsukahara forceps using the left hand and then grasped the SMM using small Martin forceps held in the right hand. The assistant controlled the TCR so it supplied clear images of the TCR. After sufficient observation of the SMM and uterine cavity, the SMM was grasped using small Martin forceps, resected, and extracted from the uterine wall through the cervical canal under direct TCR observation. Bleeding points were electrocoagulated with a U-loop electrode.

RESULTS: Discussion We presented a case in which the SMM was safely and tightly grasped using small Martin forceps, which are easy to manipulate under direct TCR observation. We are convinced that it is a simple, useful procedure for hysteroscopists worldwide. The excessive number of resections for a single SMM are unnecessary. In addition, the operation could be performed in less time. During this maneuver, we recommend pinching the left or right side of the portio with large Martin forceps anteroposteriorly and rotating them if necessary to close off the drainage.

CONCLUSIONS: Acknowledgments We thank Shinya Miyaji and Aki Yamashita for their technical efforts in making the still and moving images of the operative procedure to remove a submucous myoma under transcervical resectoscopic direct observation.

KEY WORDS: Hysteroscopy , Submucous myoma , Transcervical resection

VP-002

ENDOMETRIOSIS

ROBOTIC ASSISTED SHAVING OF DEEP INFILTRATING ENDOMETRIOSIS OF VAGINA AND RECTUM--THREE STEPS PROCEDURE

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OBJECTIVE: A 38-year-old woman diagnosed with deep infiltrating endometriosis of vagina and rectum. She suffered of severe dysmenorrhea for 5years, she also has painful intercourse. MRI showed deep infiltrating endometriosis in the pouch of Douglas and rectal wall thickening. Physical examination revealed a 3cm diameter nodule in the Douglas pouch.

METHODS: With the help of an experienced colorectal surgeon from Zhongshan hospital we performed robotic assisted shaving of deep infiltrating endometriosis of vagina and rectum.

RESULTS: She recovered well after operation without any complication. After that, her menstruation is normal and without any pain.

CONCLUSIONS: Rectal shaving, disc excision and colorectal resection are usually performed in the treatment of deep infiltrating endometriosis of the rectum. From our experiences ïnvasion of more than 50% of the bowel circumference, multiple nodules, or nodules larger than 3 cm are indications for a bowel resection.

KEY WORDS: deep infiltrating endometriosis , shaving , robotic surgery

VP-003

HYSTEROSCOPY, ENDOMETRIAL

ABLATION AND STERILIZATION

SIMPLE AND CONVENIENT TECHNIQUE FOR ENDOMETRIAL POLYPECTOMY UNDER DIRECT HYSTEROFIBERSCOPE OBSERVATION

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OBJECTIVE: Introduction Without transcervical resectoscopy or HF direct observation, complete resection of an endometrial polyp (EMP) under transabdominal ultrasonography (TAUS) guidance is not always easy.

METHODS: Case Report The surgeon grasped the uterus at twelve o'clock with Tsukahara forceps using the left hand and then grasped the EMP using placental forceps held in the right hand. The assistant controlled the HF so it supplied clear images of the EMP. When the size of the uterine cavity decreased because of dehydration with saline, the surgeon pinched the cervix with Tsukahara forceps and rotated them to stop the saline flow. When the uterine cavity had continued to decrease or there was intrauterine bleeding, the assistant delivered more saline solution with a 50-mL syringe to clear the field so the HF could produce clear images.

RESULTS: Discussion The first step of grasping the twelve o'clock portio must be performed after sufficient paracervical block with lidocaine. During this maneuver, the cervical diameter is sometimes so large that the saline solution drains out and the uterine cavity cannot be expanded.

CONCLUSIONS: Acknowledgments We thank Shinya Miyaji and Aki Yamashita for their technical efforts in making the moving images of the operative procedure.

KEY WORDS: Hysteroscopy , Endometrial polyp , Hysterofiberscopy

VP-005

LAPAROSCOPIC SURGERY

LAPAROSCOPIC ADENOMYOMECTOMY USING SLIDING DISSECTION TECHNIQUE

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OBJECTIVE: We introduce our laparoscopic adenomyomectomy technique

METHODS: Our laparoscopic sliding dissection technique is the method for minimizing loss of normal uterine muscle and maximizing removal of adenomyosis. 1. preoprative MRI imaging to get infrom the size of adenomyosis, distance between endometrium and adenomyosis. 2. laparoscopic sliding dissection technique along shape of adenomyosis mass 3. multiple layered suture at normal uterine muscle is needed to remove dead space and for accurate approximation

RESULTS: 35 patients with adenomyosis had operated by laparoscopic sliding technique. Among 25 patients want pregnancy, 18 patients had pregnant and delivered by cesarean section.

CONCLUSIONS: laparoscopic sliding dissection technique is to minimize loss of normal uterine muscle and maximize removal of adenomyosis lesion

KEY WORDS: adenomyosis , laparoscopic adenomyomectomy , sliding technique

VP-006

LAPAROSCOPIC SURGERY

LAPARO-ENDOSCOPIC SINGLE-SITE SURGERY (LESS) MYOMECTOMY: SURGICAL TECHNIQUE MODIFICATIONS

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OBJECTIVE: Laparo-endoscopic single-site surgery (LESS) is the new frontier in laparoscopic surgeries as it is reported to have better cosmesis and reduced post-operative morbidities in patients. LESS plays an emerging role in surgery as its technique are adopted in various disciplines like hepatobiliary and pancreatic surgery, urology, colo-rectal surgery and gynaecology. In gynaecology, LESS techniques has been used for salpingostomy, overian cysts (dermoid, endometriotic) and ovarian tumours. In our study, we aim to describe our modified surgical techniques to carry out LESS myomectomy through transumbilical access and the subsequent removal of specimen via a colpotomy incision.

METHODS: Our patient is a 37-year-old Chinese lady who presented with severe menorrhagia and subsequently underwent LESS to remove a 50 x 41 mm submucous fibroid. Written feedback was obtained from the patient. Institutional Review Board (IRB) approval is not required in our institution for case reports. The histopathology report of patient's submucous fibroid is included in the video.

RESULTS: No conversion to multiaccess standard laparoscopic technique and no intraoperative or postoperative complications were observed. The duration of the LESS for the submucous fibroid was 1.5 hours. The patient was discharged home on postoperation day 2. The patient reported that within one and a half weeks, the scar was well healed and pain was minimal that she could resume her usual activities. The single surgical scar is well hidden in the umbilicus and the patient was very satisfied with the postoperative cosmesis. There are no complications in the 6 months post operation, and the patient managed to conceive and carried the baby to full term 1.5 years post operation. She underwent an uneventful lower segment cesaerian section and delivered a healthy baby girl.

CONCLUSIONS: Therefore, we show that LESS is feasible for myomectomies, with modification in surgical techniques and vaginal retrieval of specimen. The benefits of quick recovery, minimal pain and good cosmesis provide high level of satisfaction to patients. All in all, LESS facilitates a truly minimally invasive surgical approach. The video run time is 6 minutes 7 seconds. The video includes the surgical procedure using our modified techniques, the postoperative progress, and the comparison of our surgical techniques with the conventional laparoscopic techniques.

KEY WORDS: Laparo-endoscopic single-site surgery (LESS) , Myomectomy

VP-007

NEW INSTRUMENTATION OR TECHNOLOGY

LEFT OVARIAN CYST TREATED BY NOTES OOPHO-SALPINGECTOMY

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OBJECTIVE: To present NOTES left oopho-slapingectomy in patient with left ovarian cyst

METHODS: NOTES left oopho-salpingectomy

RESULTS: The whole procedure was smooth, operation time was 50 minutes, blood loss during operation was 50ml. There's no peri- or post-operative complications noted. Patient was discharged on the 2nd post-operative day.

CONCLUSIONS: NOTES Oophor-salpingectomy is optimal in selective patient.

KEY WORDS: NOTES , Ovarian Torsion

VP-008

ENDOMETRIOSIS

SAFE AND COMPLETE LAPAROSCOPIC SURGERY OF DEEP AND ADVANCED ENDOMETRIOSIS

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OBJECTIVE: Treatment of choice at deep and advanced ednoemtriosis is laparoscopic surgery, but safe and complete removal of endometriosis lesion is always difficult and need high skilled pratitioner and multidisplinary team approach. we introduce our tip at safe and complete laparoscopic surgery of deep and advanced endometriosis

METHODS: our tip of laparoscopic surgery at deep and advanced endometriosis 1. preoperative transvaginal ultrasound and MRI exam to find lesion at bowel, ovary, bladder, ureter, deep rectovaginal area, uterosacral ligament 2. pelvic peritonectomy to get complete remval visilble and subtle endometriosis lesion from pelvic brim to ureter tunnel 3. dissect ureter and rectum and removal both uterosaral ligament to remove hidden deep endometriosis lesion 4.identify hypogastric nerve to protect nerve 5. training and being skilful at laparoscopic bladder, ureter, bowel endometriosis lesion removal and repair to avoid and reduce complication rate and recurrence rate by this method, recent 5 years, we had experienced laparoscopic surgery at 134 deep and advanced ednoemtriosis patients.

RESULTS: complication 1. ureter injury - 1. 2. bladder repair after bladder endometriosis lesion removal-3 3. bowel repair after dissection between rectum and cervix and bowel endometriosis lesion rmoval - 32 we had done laparoscopic ureteroureterostomy after ureter injury detected, insertd double J

catheter to involved ureter. after bladder repair, we stayed voiding catheter during 6 days. after bowel repair, we ordered the patient do not eat per oral during 2 days. all patients (134) improved dysmenorrhea and chronic pelvic pain, dyschezia symptom dramatically.

CONCLUSIONS: our laparoscopic surgery tip is good for safe and complete removal of deep and advanced endometriosis lesion, and having good symptom improvement. recurrence rate after 5 years later was not checked, so, we need more this surgery and more time.

KEY WORDS: deep infiltrative endometriosis , bowel wall involvement , peritonectomy

VP-009

ENDOMETRIOSIS

LAPAROSCOPIC RADICAL TRACHELECTOMY FOR POSTERIOR DIE (DEEP INFILTRATING ENDOMETRIOSIS) INVOLVING SACRAL NERVE ROOTS

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OBJECTIVE: DIE (deep infiltrating endometriosis) lesions involving somatic nerves are relatively rare, as compared to those invading autonomic nerves (hypogastric nerve, splanchnic nerve, or inferior hypogastric plexus) alongside the uterosacral ligament (USL). Here we presented a rare case with posterior DIE lesions infiltrating the whole uterosacral ligament all the way deep to pre-sacral region, involving sacral nerve roots, causing severe periodic pelvic and anal pain.

METHODS: 44 y/o female, G2P2, received abdominal subtotal hysterectomy (laparotomy) for diffuse adenomyosis 1+ years ago. She had the problems of persistent periodic pelvic pain and anal discomfort. PV revealed tender indurated mass over posterior fornix, retrocervix, Lt USL, deep to pre-sacral area. Transvaginal sonography confirmed the diagnosis of Lt pararectal & USL DIE tumors. Laparoscopic surgery was proceeded.

RESULTS: After careful adhesiolysis, bilateral retroperitoneal spaces were opened to expose the ureters, uterine vessels, and pelvic autonomic nerves (hypogastric nerve) as possible. Almost entire Lt USL, pelvic plexus (inferior hypogastric plexus) were infiltrated by the DIE lesions. The DIE lesions invaded so deeply, that sacral nerve roots (S2, S3) were also partially involved. After careful neurolysis, part of hypogastric nerve fibers, pelvic splanchnic nerve fibers, and pelvic plexus fibers were sacrificed, and the entire DIE lesions over Lt USL could be excised in en-bloc fashion. The main trunks of Lt sacral nerve roots (including S2, S3, S4) were well exposed and preserved. Radical trachelectomy was then proceeded smoothly. The entire surgery took 4 hr 45 min, with blood loss 300cc. The post-operative course was smooth. She could void well on post-Op day 6. Constipation and perineal numbness sensation persist for 4+ months, gradually improved, and she was doing well thereafter.

CONCLUSIONS: LSC radical excision for posterior DIE lesions involving sacral nerve roots is feasible. With good anatomy knowledge and fluent skills, the neurolysis procedure should be safe with acceptable complications.

KEY WORDS: endometriosis , deep infiltrating , sacral nerve root

VP-012

ROBOTICS

LAPAROSCOPIC MYOMECTOMY VERSUSROBOTIC-ASSISTED MYOMECTOMY IN HUGE LATERAL WALL MYOMA

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OBJECTIVE: The application of minimally invasive surgery for huge lateral wall myoma is usually technically challenge. Two such cases were operated by laparoscopic or robotic assisted surgery.

METHODS: Case 1: a 41 years old patient, G0P0, BMI: 18.7, received 3 doses of GnRHa before operation. Laparoscopic myomectomy was performed on 2012.12.17. Case 2: a 32 years old patient, G2P2, BMI: 20.3. Her hemoglobin was 8.8 mg/dL and blood transfusion was given before operation. Robotic assisted myomectomy was performed on 2015.10.28.

RESULTS: Case 1: The operative time was 5 hours and 35 minutes and the estimated blood loss was 900 mL. She received 2 units of packed RBC transfusion after operation. The operated myoma weight was 304 g. Case 2: The operative time was 2 hours and 25 minutes and the estimated blood loss was 100 mL. The operated myoma was 350 g.

CONCLUSIONS: Robotic assisted myomectomy is more feasible than laparoscopic myomectomy for large, lateral wall myoma due to enhanced visualization, wristed instrumentation, and improved ergonomics of robotic platform.

KEY WORDS: Laparoscopic myomectomy , Robotic assisted myomectomy , huge myoma

VP-015

ROBOTICS

NECK SCARF OF URETER AND BULLDOG OF UTERINE VESSEL IN DA VINCI ROBOTIC DEEP INFILTRATIVE ENDOMETRIOSIS EXCISION

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OBJECTIVE: Deep infiltrative endometriosis is one of the most challenging gynecologic operation due to the distorted anatomy by the fibrosis of endometriosis gland. In the video we showed the major surgical procedure including the following 1. The bilateral ovarian chocolate cyst decompression and then suspension with suture to abdominal wall as external traction. 2. The ureterolysis by trace the ureter course from pelvic brim to crossing with uterine vessels 3. Dissection of the origin of uterine vessels from the origin of internal iliac artery and block it with bulldog temporally 4 .Develop the para-rectal space, and

expose the Cul-de sac by using the vaginal and rectal probe 5. Excise the fibrosis mass surrounded by the sacrouterine ligament and posterior vaginal wall and do the rectal surface shaving.

METHODS: Intervention: Here we present our technique by using the yellow rubber band to collar the ureter as neck scarf ,when using Da Vinci Si robot system with four arms (included robotic laparoscopy) , the stable third arm as an assistant of surgeon to traction the neck scarf to prevent ureter injury when dissection .The operative time, console time, docking time and blood loss, were recorded. All patietns received post-operative Leuplin-DEPOT injection for 6 months

RESULTS: 20 consecutive patients with deep endometriosis were safely operated without fistula, ureter injury , laceration .

CONCLUSIONS: We could always check the ureter safety during difficult dissection , especially during the long surgery the surgeon was fatigue and had less concentration while using the energy source .

KEY WORDS: deep infiltrative endometriosis , Da Vinci Robotic , ureter

VP-016

ROBOTICS

1. UTEROVAGINAL PROLAPSE WITH STRESS URINARY INCONTINENCE 2.MULTIPLE UTERINE MYOMAS WITH COMPRESSION SYMPTOMS-ACUTE URINARY RETENSION

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Tri-Service General Hospital

OBJECTIVE: To solve multiple uterine myomas with compression symptoms and stress urinary incontinence with minimally invasive surgery.

METHODS: robotic subtotal hysterectomy, presacral uterosacral ligament –cervicovaginal suspension, paravaginal repair, Burch colposuspension

RESULTS: The patient voiding smoothly and has no more heavy amount of menstruation.

CONCLUSIONS: Robotic is a feasible surgery to complete combined surgery of subtotal hysterectomy and pelvic reconstruction surgery.

KEY WORDS: Robotic Burch colposuspension , paravaginal repair , subtotal hysterectomy

VP-020

LAPAROSCOPIC SURGERY

URETEROVAGINAL FISTULA IN A PATIENT WHO UNDERWENT TOTAL LAPAROSCOPIC HYSTERECTOMY FOR CESAREAN SCAR PREGNANCY

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OBJECTIVE: Cesarean scar pregnancy (CSP) is a rare condition even among ectopic pregnancies. However, the incidence of CSP has been on the rise recently with the increasing rate of cesarean section. While total hysterectomy is excellent in terms of curability, fertility-preserving methods include uterine artery embolization, methotrexate (MTX) therapy, and wedge-shaped excision of the lesion site. We will discuss a patient who developed ureterovaginal fistula following total laparoscopic hysterectomy (TLH) for CSP.

METHODS: Case subject: The patient presented was 32 years of age, gravida 3 para 2 (first cesarean section: 30 years of age, breech presentation). At 9 weeks of gestation by natural pregnancy, (serum hCG: 15052 mIU/ ml) ultra-sonographic exam revealed that the gestational sac was implanted at the site of the cesarean section scar with no fetal heart rate observed. Therefore, CSP delayed miscarriage was diagnosed. As the subject hoped to preserve her fertility, whole body administration of MTX at a dose of 50 mg/ m2 was administered three times. Although HCG levels decreased, a large volume of vaginal bleeding was observed. TLH was performed after the patient and her family expressed their desire for radical surgery.

RESULTS: Intraoperative findings: The scar pregnancy tissue, with abundant blood flow, protruded towards the left side of the lower uterine body. When surrounding tissue was dissected, it was difficult to achieve hemostasis. The previous cesarean section had also resulted in wrinkling of the broad ligament and medial displacement of the left ureter. The left ureter was verified and the anterior layer (of the vesico-uterine lig or broad lig.) was divided. After the ureter was adequately di7ssected, hysterectomy was performed. Postoperative progress. Following surgery, the subject complained of lower left back pain, but transabdominal ultrasound revealed no hydronephrosis. So the subject was discharged. However, from day 8 after surgery, urinary excretion appeared from the vagina. As contrast enhanced CT revealed left ureterovaginal fistula, laparoscopic ureterovesicostomy was performed. At present, the patient is progressing well, with negative HCG and no urinary dysfunction.

CONCLUSIONS: Discussion: The initial cesarean section caused medial displacement of the left ureter and, as protrusion of the scar pregnancy tissue made it difficult to treat the cardinal ligament, the anterior layer (of the vesico-uterine lig or broad lig.) was dissected. The primary cause of the fistula was heat damage to the ureter as a result of the use of multiple power sources to achieve hemostasis for the abundant blood flow that occurred from the dissection of the scar pregnancy tissue. Conclusion: In CSP, pregnancy tissue results in abundant blood flow, making the area prone to bleeding and complicating hemostasis. Furthermore, as previous cesarean sections may have displaced the ureter and blood vessels, caution should be exercised to avoid injury to organs.

KEY WORDS: Cesarean Scar Pregnancy , Ureterovaginal fistula , TLH

VP-021

LAPAROSCOPIC SURGERY

INTRA-OPERATIVE PALPATION IS IMPORTANT TO PREVENT MISSING THE HIDDEN VAGINAL LESIONS DURING LAPAROSCOPIC DIE SURGERY

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OBJECTIVE: LSC radical excision is the treatment of choice for patient with pelvic DIE lesions. However, LSC DIE surgery is complicate and difficult, and is among the most difficult LSC GYN surgeries. Only few surgeons can dominate the difficult surgical skills. Robotic endometriosis surgery had been advocated to solve this problem. Although robotic system can increase the microscopic surgical feasibility, a major drawback for robotic endometriosis surgery is the lack of tactile feedback. When the radicality is determined only by visual feedback, sometimes the hidden DIE lesions may be missed and left behind. Intra-operative palpation is important to confirm the thoroughness of the radical surgery. In this video, we will demonstrate the "hidden" posterior DIE lesions over rectovaginal septum and vagina wall that were not recognizable through "visual feedback", but were later discovered by LSC instrument and vaginal hand "tactile feedback".

METHODS: Surgical videos were reviewed and edited.

RESULTS: In this video, we will demonstrate a case with bilateral ovarian endometrioma, posterior DIE involving bilateral USL (utero-sacrla ligament), retrocervix, rectovaginal septum, rectal wall, and vagina mucosa. LSC adhesiolysis plus enucleatoin of ovarian endometrioma and DIE radical excision was performed. After careful dissection of the retroperioneal spaces, rectovaginal space was opened, and DIE lesions over bilateral USL, retrocervix, and rectal wall seemed to be completely excised under standard LSC view. However, instrument palpation revealed indurated Rt USL and rectovaginal septum. Vaginal finger palpation confirmed the persistent nodularity of posterior fornix and vagina. Further dissection revealed a large "hidden" vaginal DIE plaque. The thorough DIE excision was completed after a partial vaginectomy. The patient recovered well after the surgery.

CONCLUSIONS: Instrument palpation and vaginal finger palpation is extremely important during LSC DIE surgery. We should rely on not only the "visual", but also "tactile" feedback to confirm our radicality.

KEY WORDS: laparoscopy , DIE , endometriosis

VP-022

LAPAROSCOPIC SURGERY

A CASE REPORT OF LAPAROSCOPIC UTEROSACRAL LIGAMENT SUSPENSION, BURCH COLPOSUSPENSION AND PARAVAGINAL REPAIR

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Chattanooga Homeris Center, USA[2]

OBJECTIVE: To demonstrate a surgical repair in a case with uterine prolapse and paravaginal defect.

METHODS: A 57 y/o female suffering from stage 2 uterine prolapse, stage 2 cystocele and paravaginal defect. She received laparoscopic uterosacral ligament suspension, Burch colposuspension and paravaginal repair.

RESULTS: She recovered from operation uneventfully.

CONCLUSIONS: Laparoscopic uterosacral ligament suspension, Burch colposuspension and paravaginal repair is effective in patients with uterine prolape.

KEY WORDS: laparoscopic uterosacral ligament suspension , Burch colposuspension , paravaginal repair

VP-023

LAPAROSCOPIC SURGERY

26 YEARS OLD MEDICALLY AND SURGICAILLY FREE DIAGNOSED TO HAVE RIGHT DERMOID CYST 8*7 POSTERIOR WALL UTERINE FIBROID PATIENT UNDERWENT NOTES CYSTECTOMY + MYOMECTOMY

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OBJECTIVE: 26 years old patient found to have ovarian cyst and utrine fibroid

METHODS: NOTES cystectomy myomectomy

RESULTS: patient discharge on the second day post operation without complications

CONCLUSIONS: The advantages of NOTES surgury in dermoid cyst removal. The advances in laparoscopic surgury facilities made NOTES surgury much more applicable

KEY WORDS: Notes myomectomy ovarian cystectomy

VP-024

ENDOMETRIOSIS

LAPAROSCOPIC PELVIC ANATOMY RESTORATION FOR DEEP INFILTRATED ENDOMETRIOSIS WITH SEVERE PELVIC ADHESION BEFORE IVF PREPARATION

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OBJECTIVE: IVF helps infertility patient with various factors, with around 30% of fertility rates. There are many factors contribute to failure of IVF treatment. Except of endometrial factors, deep infiltrated endometriosis with severe pelvic adhesion detours the pelvic anatomy, induces chemo-toxic endocrine and fails oocyte retrieval. Normal pelvic anatomy restoration and excision of DIE increase the successful rate of IVF.

METHODS: A case of infertility female, 42 y/o, G0P0, chronic pelvic pain, progressive dysmenorrhea in recent years, also with severe dyspareunia, menstrual diarrhea. Past history of 4 repeated previous operation for pelvic endometriosis and chocolate cysts, and also with 4 times of failed IVF. Sonography showed severe adenomyosis, Rt chocolate cyst 5.5 cm, without any hydronephrosis. PV showed diffuse tenderness over cul-de sac with Rt utero-sacral tender band. Under the impression of Rt chocolate cyst with DIE and severe pelvic adhesion, she was admitted to our hospital for laparoscopic enucleation, adhesiolysis with pelvic anatomy restoration.

RESULTS: During surgery, severe and diffuse pelvic adhesion, RO multiple chocolate cyst, Rt hydrosalpinx, adenomyosis with posterior DIE were noted. Laparoscopic adhesiolysis, fenestration and drainage of RT chocolate cyst, Rt salpingectomy, Rt ovary transposition to Rt cul-de sac and DIE excision and electrocauterization were done and to successful restoration of pelvic anatomy. After post-operation adjuvant anti-hormone therapy, she was referred to IVF department for further care.

CONCLUSIONS: Successful restoration of pelvic anatomy helps successful oocyte retrieval and extensive pelvic DIE excision improves the menstrual symptoms and inhabits chemo-toxic endocrine production. All greatly help to increase IVF fertility rate.

KEY WORDS: pelvic anatomy restoration , Deep infiltrated endometriosis , IVF

VP-025

REPRODUCTIVE ISSUES

LAPAROSCOPIC VIEW OF A CASE OF INCOMPLETE UTERINE INVERSION AFTER VAGINAL DELIVERY

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OBJECTIVE: We present a case of a 31-year-old primigravida who had postpartum hemorrhage following her first vaginal delivery about 90 minutes earlier. She was referred to our emergency department due to conscious change and unstable vital signs (blood pressure 70/40mmHg, pulse rate 100bpm and respiratory rate 30cpm)

METHODS: Sonographic examination showed no retained placenta but irregular contour of uterus. Pelvic examination revealed massive vaginal bleeding with huge blood clots, no obvious genital tract laceration wound was readily visible. Cupping of uterine fundus was palpable approximately 2-3 fingers breadth beneath the umbilicus. Under the impression of uterine inversion, manual reduction of uterus via vagina was attempted but failed initially. She was taken to the operation room immediately after stabilization of vital signs. Under general anesthesia, emergent diagnostic laparoscopy was performed and it confirmed the diagnosis of incomplete uterine inversion. An obstetrician's fist was introduced via the vagina to push the lax uterus towards umbilicus to its normal position under laparoscopic guide. After repositioning, 30U of oxytocin was injected intramuscularly onto the uterine surface. A gauze pad was used to pack the uterine cavity and removed the next day.

RESULTS: The operation time was about 1 hour and the estimated blood loss was minimal (less than 50cc). The patient tolerated the procedure well and her post-operative course was uneventful. She was discharged three days later under stable condition.

CONCLUSIONS: Uterine inversion can be a life-threatening obstetric complication. In case of difficult manual manipulation, anesthetic agent is often necessary to aid in correcting the inversion. The best prognosis is achieved by prompt recognition of the problem and immediate attempt to correct the inversion.

KEY WORDS: Postpartum Hemorrhage , Uterine inversion , Diagnostic laparoscopy

VP-028

ROBOTICS

FEASIBILITY OF REDUCED-PORT ROBOTIC SURGERY FOR MYOMECTOMY WITH THE DA VINCI® SURGICAL SYSTEM

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OBJECTIVE: To present our initial experience with reduced port robotic surgery (RPRS) for myomectomy using the Octo-Port.

METHODS: RPRS for myomectomy was carried out on nine consecutive patients with symptomatic uterine fibroids desiring conservative minimally invasive robotic surgery from October 2015 to June 2016 by a single surgeon. An 8.5-mm or 12-mm robotic camera cannula was inserted through one of the Octo-Port channels and an 8-mm conventional robotic port was inserted into a 10-mm channel of the Octo-Port through a 3-cm trans-umbilical incision. An additional 8-mm conventional robotic port was inserted into a typical robotic port site on the patient's right abdomen.

RESULTS: The median age and body mass index (BMI) of the nine patients were 42 years (range, 31-48 years), and 21.8 kg/m2 (range, 18.9-24.5 kg/m2), respectively. The median docking time and console time were 14 minutes (range, 7-22 min) and 90 minutes (range, 37-198 min). The largest myoma was located on the anterior uterine wall in five patients (55.6%), and the posterior uterien wall in the remaining patients. Median myoma size and weight were 7.2 cm (range, 4.1-10.5 cm) and 100 g (range, 42-200 g), respectively. Median operative blood loss and change in hemoglobin were 150 mL (range 100-700 mL) and 1.9 mg/dL (range, 0.1-3.5 mg/dL), respectively. The procedure were successfully performed via RPRS in 77.8 % of cases; two cases required placement of one to two additional robotic ports resulting in a return to traditional multiport robotic surgery. There were no major postoperative complications or postoperative hernias.

CONCLUSIONS: Our experience denomstrated the feasibility of

RPRS for myomectomy using the Octo-Port in selected patients.

KEY WORDS: Robotic myomectomy , Uterine fibroids , RPRS

VP-029

LAPAROSCOPIC SURGERY

SOME TECHNIQUES TO IMPROVE LAPAROSCOPIC MYOMECTOMY

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OBJECTIVE: Myomectomy is a one of conservative surgery for uterine fibromas. To reduce bleedings and operation room time, adequate surgical techniques are fundamental. We present some of our procedures for laparoscopic myomectomy to make better outcomes.

METHODS: We often create rapid 3D models from MRI scans, especially when the case has multiple nodules. There are some tips on surgical procedures of cleavage, dissection and suturing. We use vasopressing injection technique before making incision. To reduce use of diluted vasopressin, we use the butterfly needle which is cut down the wings and inject into the sites. Proper and forceful traction is fundamental of dissection of myoma nodule from myometrium. We use a 5mm screw and 10mm tanaculum forceps. We can manipulate nodules to any direction with a strong 5mm screw therefore it helps smooth dissection of nodules. While suturing surgical defect, we use 1-0 monofilament sutures with a round body needle cut down to 23cm length and take defects by figure-of-eight suture. During dissection and suturing, we always keep in mind that we do not touch too much to serosa. We attach adhesion barrier agents onto sites of cleavages.

RESULTS: Using 3D models improves identification of nodules and walls, they helps to make the operation plan better. Using butterfly needles, we can inject diluted vasopressin just into the site made incision. We ordinary use 2 to 8 units of vasopression per an operation therefore this technique could reduce the amount of vasopressin. Short sutures easily are handled easily during intracorporeal suturing, however we should make multiple sutures with them for large defects. Inverted figure-of-eight suture realise better wound attachment therefore sutures could be minimal times to close wounds and to achieve hemostat. To avoid postoperative adhesion, we emphasize the importance of not only using adhesion barrier agents also avoiding unnecessary serosa injury.

CONCLUSIONS: Laparoscopic myomectomy is a surgery which requires that surgeons are well-banlanced in fundamental techniques. Those tips would be little enhancement to achieve better surgical outcome.

KEY WORDS: uterine leiomyoma , laparoscopic myomectomy , surgical tecniques

VP-030

NEW INSTRUMENTATION OR TECHNOLOGY

A COMBO-TECHNIQUE TO PREVENT SPILLAGE IN SINGLE-PORT LAPAROSCOPIC SURGERY FOR HUGE OVARIAN DERMOID CYST

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OBJECTIVE: We describe a technique to reduce spillage of cyst fluid in patients undergoing single-port laparoscopic surgery for dermoid cyst.

METHODS: After making a 2–3 cm transverse transumbilical incision, an Alexis wound retractor (30 mm) was inserted to expand the edge of the incision. The patients were in Trendelenberg position and upward manual pressure was applied through abdominal wall if necessary. The space between the ovarian mass and retractor was filled with gauze or small tapes. A small (less than 7 mm) incision was made and tip of suction was inserted into the tumor. After sufficient suction, the opening was closed with purse string suture. A proper size of endobag was inserted into the abdominal cavity via incision site. The retractor was capped with Gel-port and the ovary was then placed into the bag. The operative procedure was carried out inside the endobag.

RESULTS: The above mentioned technique was applied to four patients with huge dermoid cyst. The operative procedures were cystectomy (3 cases0 and oophorectomy (1 case). When cleansing the abdominal cavity with saline, no fat or hair was found in all cases.

CONCLUSIONS: A combo-technique can successfully prevent spillage of tumor content when treating huge dermoid cyst by single-port laparoscopic surgery

KEY WORDS: dermoid , single-port , spillage

VP-031

ROBOTICS

ROBOTIC/ROBOTIC SINGLE-SITE CERVICAL LIGAMENTS SPARING HYSTERECTOMY

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OBJECTIVE: To present how and why the cervical ligaments sparing hysterectomy (CLSH) done by the Da Vinci Surgical System.

METHODS: Procedures:The single port setting was prepared as previously described in the single-post access laparoscopic surgery. In brief, make a 2-3 cm incision via the umbilicus, insert

the wound retractor and connect with a home-make surgical glove. Specimen tissue pouch should be put into the abdomen cavity during the umbilical port setting.The robotic CLSH procedures: Phase 1: robotic approach involving supracervical hysterectomy by using an unipolar scissor, conisation through the internal os of the cervix. Insert a piece of Surgicel into the site of the conisation. Put the internal os conisation specimen and the uterine body into the tissue pouch. The pouch was simply closed by pulling up the drawstring and pulling up to the single-port site. The body of the uterus was cut into one or more long strip(s). Phase 2: wide excision of the cervix through the vagina until the Surgicel inserted in Phase 1 was seen. Close the residual cervical stromal stump with delayed absorbable sutures.

RESULTS: Rationales: Laparo-endoscopic single-site two-phase cervical ligaments sparing hysterectomy (LESS-CLSH) is new minimally invasive approach to hysterectomy that spares the cervical ligaments and eliminates the endocervical gland and transformation zone of the cervix [TJOG 2016, vol. 55, pg.423-426]. With this two-phase approach, the stability of the pelvic floor is maintained; theoretically, the chances of cervical neoplasia and cyclic vaginal bleeding are negligible. During robotic surgery, the camera arm swings at a constant point of abdomen, this design enables the umbilical single-port setting to be used in the robotic surgery. Manual morcellation after undocking by using a scalpel is easily visualised and traction of the specimen close to the abdominal skin could markedly reduce the working distance. This setting allowed the large uterine body can be removed in fast and safe manipulation;Beside, and the advantage of robotic surgery on suturing was fully used.

CONCLUSIONS: Da Vinci Surgical System with the umbilical single-port setting is safe and suitable for the delicated minimal invasive cervical ligaments sparing hysterectomy.

KEY WORDS: cervical ligaments sparing hysterectomy , Robotic cervical ligaments sparing hysterectomy

VP-032

LAPAROSCOPIC SURGERY

HIGH SUCCESS RATE OF SEPRAFILM APPLICATION BY MOISTENING AND ROLLING WITH PAPER IN SINGLE- OR MULTI-PORT LAPAROSCOPIC SURGERY

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OBJECTIVE: To proposed a better method for applying the adhesion barrier Seprafilm in single- or multi-port gynecology surgery.

METHODS: A retrospective analysis with surgical videos and illustrations records was performed. The patients underwent multiport or single-port laparoscopic gynecology surgery from Dec. 2014 to Jan. 2016 in Buddhist Tzu Chi General Hospital, Hualien, 46 of them received Seprafilm during surgery via this proposed method. A piece of Seprafilm was cut into quarter size. To moisten and soften the Seprafilm, each piece was placed on a wet wrung gauze until it naturally becomes curved in shape. Two pieces of them were rolled in with a similar size paper (paper at outside) that came from the baggage of Sepraflim. Keeping the rolled seprafim with a grasper, delivered it into the abdomen through a 11 mm trocar.

RESULTS: The success rate of Seprafilm insertion and correct placement were 100% (46/46) and 95.7%, respectively. Two cases (2/26) of single-port laparoscopic surgery were failure of Seprafilm placement, all multiport laparoscopic surgery were successful (20/20). The average time required for placement of all pieces of Seprafilm per surgery was 4.0±1.47 mins among all surgeries, while significantly more time is required in the single-port surgery (4.4±1.59 mins) than the multiport surgery (3.4±1.13 mins) ($p<0.05$). One case experienced a second look surgery and revealed no adhesion in pelvic surgical sites.

CONCLUSIONS: This proposed method of Seprafilm placement is a simple technique that does not need special equipment, and confers a very high success rate. The placement of the Seprafilm takes longer time in single-port surgeries than in multiport surgeries.

KEY WORDS: adhesion barrier , laparoscopy , Seprafilm

VP-035

ENDOMETRIOSIS

SURGICAL TIPS FOR IDENTIFICATION AND PRESERVATION OF HYPOGASTRIC NERVES DURING NERVE-SPARING RADICAL DIE EXCISION

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OBJECTIVE: DIE (deep infiltrating endometriosis) surgery is the one of the most difficult gynecological laparoscopic surgeries. Complete excision of the DIE lesions is our surgical goal, but when posterior DIE lesions involve deep pelvic structure like deep uterosacral ligament (USL), cardinal ligament, parametrium or paracolpium area, a wide or radical excision of these lesions will result in pelvic autonomic nerves injury, and will cause troublesome post-operative voiding and defecation problems.

METHODS: In this video, we will demonstrate the surgical anatomy, especially focusing on neuroanatomy, and the surgical techniques to precisely identify and to preserve the hypogastric nerve within the diffusely fibrotic DIE complex in a case with posterior DIE lesions undergoing nerve-sparing radical DIE excision.

RESULTS: With precise knowledge of surgical anatomy, hypogastric nerves can usually be identified between ureter and USL. In difficult cases, contralateral “nerve traction test” can be applied, to recognize the correct location of the hypogastric nerve within the fibrotic DIE mass. Once hypogastric nerve being identified, neurolysis can then be performed, preferably by cold cut rather than electrocauterization, to minimize the nerve injury. After neurolysis, radical DIE can be safely performed, while the nerves can be preserved.

CONCLUSIONS: With precise knowledge of neuroanatomy, and with careful manners and skills, nerve- sparing radical DIE excision is feasible.

KEY WORDS: deep infiltrating endometriosis, nerve sparing

VP-036

LAPAROSCOPIC SURGERY

LAPAROSCOPIC APPROACH FOR HYSTERECTOMY

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OBJECTIVE: There are different laparoscopic approaches for hysterectomy, such as single-incision laparoscopic surgery, conventional laparoscopic surgery and transvaginal natural orifice transluminal endoscopic surgery (NOTES). By specific patient selection, we will demonstrate related cases and share our experience in choosing different way of laparoscopic hysterectomy.

METHODS: Video includes 4 patients receiving laparoscopic hysterectomy. The hysterectomies were conducted by single port, conventional way, transvaginal NOTES and robotic NOTES, respectively.

RESULTS: Single-incision laparoscopic surgery is suitable for small-sized uterus. By incorporating with special instrument or one accessory port, may facilitate the procedure or make adhesiolysis easier. In facing of larged-sized uterus, conventional laparoscopic surgery is appropriate since there are more instruments can be used at the same time to creating optimal surgical field. Transvaginal NOTES is also feasible for larged-sized uterus, and ligating uterine vessels transvaginally can also minimize blood loss.

CONCLUSIONS: In choosing the proper way of laparoscopic hysterectomy, patient's condition may be the key point.

KEY WORDS: Laparoscopic hysterectomy

VP-040

LAPAROSCOPIC SURGERY

LAPAROSCOPIC SALPINGO-OOPHORECTOMY IN A PREGNANT PATIENT

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OBJECTIVE: .To show the feasibility and safety of laparoscopic salpino-oophorectomy during pregnancy in a large complex right ovarian Cyst

METHODS: laparooscopic surgery video recording then editing using corel video studio software, showing the most important steps of laparoscopic salpingo-oophorectomy in a pregnant patient for a large recurrent complex right ovarian cyst.

RESULTS: Ovarian cysts in pregnancy have a higher incidence of complications, this video shows a laparascopic salpingo-oophorectomy for a pregnant lady who is a 36 years old Primi Gravida, who had a history of laparoscopic right ovarian cystectomy for a large benign cystadenoma 1 year ago, presented with a recurrent 17 cm complix right ovarian cyst, at 13 weeks of pregnancy,laparoscopic salpingo-ooporectomy was done considering special pregnancy considerations, like umbilical open technique, intra abdomenal gas pressure not exceeding 12 mmHg, no uterine manipulator,warm saline irrigation with as gentle surgery as possible. The video shows the effecacy of stay stiches, importance of ureter localisation before suspensory ligament coagulation,and the importance of in bag morcelation when malignancy is suspected. The patient was discharged 2 days later with a viable fetus, and the final histopathology came with Benign mucinous cystadenoma.

CONCLUSIONS: - Pregnancy is no more considered a contraindication for laparoscopic surgery, if physiological changes are taken into consideration. - Umbilical entry at 13 weeks pregnancy is safe and feasible, while opened technique is suggested to be safer, in addition to the better cosmetic outcome it provides. - Laparoscopic salpingo-oophorectomy at 13 weeks pregnancy should not affect pregnancy outcome in experienced hands.

KEY WORDS: laparoscopic salpingo-oophorectomy , laparoscopy in pregnancy

VP-041

ENDOMETRIOSIS

ROBOTIC ASSISTED LAPAROSCOPIC PARTIAL BLADDER RESECTION FOR INFILTRATING ENDOMETRIOSIS

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OBJECTIVE: Background: This case is an example of difference in concept of minimal invasive surgery and also determining benefits of Robotic surgery.

METHODS: Before the robotic resection of bladder endometrioma, both the ureters were stented with Double J-stent. On laparoscopy, bladder (near the left ureteric orifice) was densely adhered to the uterus. First we tried to do the adhesiolysis in usual way but failed. So we then resected the peritoneum over the bladder and did a complete left ureterolysis. While doing the ureterolysis we had to cut the round ligament which was later sutured back. After the ureterolysis was done, partial resection of the bladder wall was done to remove the endometrioma. Here the importance of laparoscope comes. The bladder rent left after the excision of the endometrioma was just 0.5 cm away from the left ureteric orifice. Because of good magnified vision we could suture the bladder in usual 2 layers and saved the patient of a complicated ureteric implantation (which was indicated according to old concepts).

RESULTS: No Intraoperative and Postoperative complications. Pt. was mobilized within 48 hrs. Foleys catheter was kept for 14 days and DJ stent was kept for 6 weeks. Pt. was given Conjugated estrogen(0.625) TID for 16 days

CONCLUSIONS: Robotic assistance in the treatment of extra genital endometriosis is feasible and safe. However, further randomized trials are needed to fully assess the benefits afforded

by robotic assistance in this patient population over conventional laparoscopy. Robotic can help to convert open surgeries for endometriosis into minimally invasive one as the learning curve with robotics is less. Concepts of Minimal invasive therapy differ from that of an open surgery.

KEY WORDS: Robotic , Deep infilterating Endometriosis , Genito-urinary

VP-043

LAPAROSCOPIC SURGERY

ROLE OF 2.4MM INSTRUMENT IN SINGLE-PORT LAPAROSCOPIC OVARIAN CYSTECTOMY

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OBJECTIVE: Laparo-endoscopic single-site surgery (LESS) has recently seen more publicity and excitement as surgeons continue to develop techniques to evolve surgery to less invasive approaches. Despite the potential advantages of LESS, it is technically more difficult due to instruments collision in limited space. The introduction of 3mm laparoscopic forceps (Endo Relief) might ease the trouble to a lesser extent. We would like to share our experience of its use in single-port laparoscopic ovarian cystectomy.

METHODS: 20 patients diagnosed with ovarian cysts 6-11cm in diameter, aged between 25-40 years old, with BMI 19-25 kg/m2 were enrolled in this retrospective study. Based on patients' preferences and economic status, 7of them chose to use GelPOINT Advanced Access Platform, whereas the remaining used a homemade umbilical port set up by using an Alexis wound retractor and a surgical glove. An additional 3mm laparoscopic forceps (Endo Relief) was introduced via a 3mm incision wound over left lower quadrant to aid the surgical procedure which included enucleation and suture.

RESULTS: The median operative time was 50±20 minutes. Pelvic adhesion was noted in 5 of the patients, all of them achieved hemostasis via suture with 3-0 V-Loc™ wound closure device or Vicryl™ suture. None of them was converted to laparotomy or conventional three-port laparoscopic surgery.

CONCLUSIONS: 2.4 mm laparoscopic forceps offer additional technical aid without requiring additional wound closure.

KEY WORDS: Laparo-endoscopic single-site surgery , laparoscopic forceps (Endo Relief

VP-044

GENITAL TRACT ANOMALIES

TREATMENT OF CERVICAL AGENESIS WITH LAPAROSCOPY: CASE REPORT

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OBJECTIVE: Cervical agenesis is very rare congenital disorder case with cervical not formed. because cervical clogged so that menstruation can not be drained and occur hematometra, hematosalphing and endometrioma. This case often occurs in adolescents so that minimally invasive treatment is recommended to save reproductive function

METHODS: This is a very rare case reports. do treatment with minimally invasive therapy combined by laparoscopic and vaginal surgery

RESULTS: Case reports Miss T 19 years old came with complaints of lower right abdominal cyclic pain since 6 months and heavier. operating history four years ago with hematometra, endometrioma, cervical agenesis conducted laparotomy cystectomy and hematometra drainage. After the surgery patients lost of control. On physical examination inspeculo obtained vagina 7 cm cervix not performed. On ultrasound examination obtained hematometra and endometrioma bilateral. In the MRI obtained cervical anomalies. diagnosed with endometrioma, hematometra, cervical agenesis and perform surgery with laparoscopic cystectomy, neoportio and use catheter no 24 in new cerviks . And now she can currently be normal menstruation

CONCLUSIONS: Minimally invasive treatment in congenital anomalies case is recommended to save reproductive function.

KEY WORDS: Cervical Agenesis , Laparscopic , Neoportio

Poster Exhibition Abstract

PP-001

EVALUATION AND ASSESSMENT

FINDINGS OF FIBROIDS WITH MRI DIFFUSION WEIGHTED IMAGE ARE EFFECTIVE TO JUDGE WHETHER THE MORCELLATOR IS ALLOWED TO BE USED IN LAPAROSCOPIC MYOMECTOMY

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OBJECTIVE: Laparoscopic myomectomy (LM) has an advantage on lower invasive surgery compared to open surgery, however, has a disadvantage on spreading malignant tissue unexpectedly by morcellation. Atypical leiomyoma or stromal tumor of uncertain malignant potential (STUMP) also has a risk potentially. However, preoperative diagnosis is difficult. We judge the probability of malignancy with diffusion weighted image (DWI) of MRI to decide to use electric morcellator, and report on the result.

METHODS: The objects are 229 cases of LM performed in 2015. We avoid intra-abdominal morcellation in the case that uterine fibroid has high signal in DWI and low signal in apparent diffusion coefficient (ADC) map. We discuss it at the preoperative meeting. When we encounter such cases, we put fibroids in bag and extract via vagina or wounded part at abdomen, or perform in-bag-morcellation. We examine the pathological findings of the fibroids, and analyze the appropriateness of the indication of morcellation

RESULTS: Of 229 cases of LM, we judged to avoid morcellation at 23 cases; extracted via vagina in 7 cases, via wound in 12 cases, and with in-bag-morcellation in 4 cases. The pathological findings of the 23 cases were endometrial stromal sarcoma in one case (4.3%), atypical leiomyoma in 2 cases (8.7%), STUMP in 7 cases (30.4%), and usual leiomyoma in 13 cases (56.5%). As for 206 cases in which morcellation was permitted, the findings were atypical leiomyoma in 6 cases (2.9%), STUMP in 9 cases (4.4%), usual leiomyoma in 189 cases (91.7%).

CONCLUSIONS: We can avoid to morcellate sarcoma by preoperative discussion with MRI. Furthermore, this criteria is effective to determine the intra-abdominal morcellation because the rate of proper diagnosis of usual leiomyoma is high.

KEY WORDS: laparoscopic myomectomy , MRI , morcellation

PP-002

EVALUATION AND ASSESSMENT

EVALUATION DEGREE OF DIFFICULTY OF LAPAROSCOPIC UTERINE ADENOMYOSIS HYSTERECTOMY

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OBJECTIVE: Surgical difficulty of adenomyosis is influenced by uterine size and adhesion of uterine neighboring organs. We examined risk factors of laparoscopic hysterectomy (LH) difficulty by the examination of MRI as the evaluation of preoperative.

METHODS: A retrospective analysis has 55 patients undergoing LH for uterine adenomyosis from January 2009 through May 2015. Those patients were classified in adenomyosis subtype I~IV by preoperative MRI. We investigated about pelvic anamnesis, uterine weight, ovarian endometriosis and adenomyosis subtype of MRI as risk factors of adenomyosis LH.

RESULTS: 55 patients were classified subtype I (Intrinsic type) was 17patients, subtype II (Extrinsic type) was 11patients, and subtype III (Intramural type) was 1patient and subtype IV (Indeterminate type) was 26patients. Uterine weight had lightest subtype II and mean surgical time and bleed loss weren't significant difference (95%CI) among all subtypes. Adenomyosis patients with ovarian endometriosis: Group (A+E) has 11cases (20%) in the study, 8patients in type II and 3patiennts in type IV. Average operative time of Group (A+E) group took more operation time and blood loss than Adenomyosis without ovarian endometriosis. Subtype II has 8patients (73%) with ovarian endometriosis, 2patients with peritoneal endometriosis and 1patients with past ovarian chocolate cystectomy.

CONCLUSIONS: In among subtypes of MRI examination, mean surgical time and bleed loss weren't significant difference (95%CI). Group (A+E) is regarded as the factor that the risk of the degree of difficulty of LH operation. Group (A+E) took more average operation time and blood loss because of removal of endometrial cyst and adhesion to neighboring organs. Subtype II (Extrinsic type) often has endometriosis than other types. It might be useful to examine subtypes of MRI to evaluate the degree of difficulty of LH.

KEY WORDS: laparoscopic hysterectomy , adenomyosis , subtypes of MRI

PP-003

EVALUATION AND ASSESSMENT

MRI T2-WEIGHTED IMAGE CAN PREDICT THE RISK OF BLEEDING IN LAPAROSCOPIC MYOMECTOMY

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OBJECTIVE: For social background, the demand of Laparoscopic

Myomectomy(LM) is increasing. However, this surgery has a high degree of difficulty. Even in technique is high operator, there is a case to be encountered in a large amount of blood loss. If we can predict the amount of bleeding before surgery, it is possible to safer surgery such as preparation of autologous blood donation and recovery. We examined the factors that increase the amount of bleeding in LM.

METHODS: Retrospective analysis was performed in 287 cases of LM in January 2013 to April 2015.

RESULTS: Patients age were 37.6±4.7 (24~53) years. Maximum diameter was 7.6±2.4 (2~15) cm. Operative time was 85.7±33.8 (33~243) min. Blood loss was 148.2±199.6 (0~1449) mL. In the large size fibroids, many amount of bleeding was observed. Comparison of the size and the position of myoma, the cases of the intramural myoma with over 8cm size and ligament myoma with over 8cm size were larger blood loss than the other cases. Uterine myomas were classified into subserosal and intramural and submucosal and ligament myoma. In addition, fibroids were classified in the findings of MRI T2-weighted image. Comparison of the fibroids of the low image and the not low, in the cases of MRI T2-weighted image was low, the blood loss was lower (Low vs. Not low, 104.9±132.9 vs. 258.2±283.0).

CONCLUSIONS: When examined using the myoma size and the MRI T2-weighted image, it is possible to predict the risk of bleeding.

KEY WORDS: Laparoscopic myomectomy , MRI T2-weighted image

PP-004

EVALUATION AND ASSESSMENT

ASSESSMENT OF PREVIOUS CESAREAN SECTION SCAR IN NON-PREGNANT WOMEN: AGREEMENT BETWEEN FINDING OF TRANSVAGINAL SONOGRAPHY AND HYSTEROSCOPY

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OBJECTIVE: The study objective was to assess the detection rate of previous cesarean section scar defect (PCSD) by transvaginal ultrasonography(TVS) and to evaluate the relationship between the abnormal uterine bleeding, transvaginal ultrasonographic and hysteroscopic findings.

METHODS: We performed a retrospective study between May 2007 and September 2015. Total 88 premenopausal who had at least one cesarean section history, abnormal uterine bleeding symptoms and a positive finding of PCSD on the hysteroscopy were included. All patients also underwent TVS. The findings of TVS, hysteroscopy and the symptoms of the patients were recorded.

RESULTS: We included 88 women with at least one cesarean section history with a mean age of 39.4(range: 24-52) years. All women underwent TVS and hysteroscopy. The mean number of cesarean section was 1.9(range: 1-4). Most (68.2%) patients have anteverted uterus. High percentage(61.4%) of patients has myoma coexisting on TVS. The prevalence of PCSD under TVS was 35.2%(31/88). There was no significant relationship between abnormal uterine bleeding symptoms and whether scar defect is detectable on TVS. The most common findings of hysterscopy on scar defect was multiple vessels (69.3%) and oozing points on the defect(51%). The appearance of the vessels on the defect significantly related to the postmenstrual bleeding(p=0.028).

CONCLUSIONS: Abnormal uterine bleeding problems associated with PCDS can be bothersome and affect patients'quality of life. Transvaginal ultrasonography is a non-invasive and simple tool for outpatient department. But the poor detection rate makes it not an ideal examination for correct diagnosis. There have been multiple studies describing CS scars defect on the ultrasonography. But there are few studies to describe the scar defect in detail under hysteroscopy. We observed that the scar defect can be associated with vessels, oozing points, active bleeding, or polyps during our daily practice, and categorized the observing results with the prevalence. Here we demonstrated the significant relationship between the presence of vessels on scar defect and post menstrual spotting.

KEY WORDS: cesarean section scar , Hysteroscopy , Ultrasonograph

PP-005

EVALUATION AND ASSESSMENT

THE ROLE OF ROUTINE OFFICE HYSTEROSCOPY TO IDENTIFY THE FORBIDDING CERVIX ASSOCIATED WITH EMBRYO TRANSFER DIFFICULTY BEFORE IVF TREATMENT

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OBJECTIVE: Routine office hysteroscopy maybe an essential step for infertility workup before IVF even in patients with normal transvaginal ultrasound results. However, the role of routine uterine cavity evaluation before an in vitro fertilization–embryo transfer (IVF-ET) cycle has not been uniformly accepted. On the other hand, it has been reported that the ease of the ET procedure itself does influence the success of the cycle Embryo transfer can be complicated by tortuosity and/or stenosis of the endocervical canal. Our study to demonstrate that office hysterosocpe has a key role in the diagnostic work-up of infertile women with forbidding cervix.

METHODS: Office hysteroscopy was performed in 987 patients undergoing IVF-ET from Jan 2010 to June 2016. All examinations were performed in Kaohsiung Chang Gung Memorial Hospital, Department of Obstetrics and Gynecology in an outpatient setting.. Hysteroscopies were scheduled between the 4th and 12 th cycle day prior to IVF treatment.

RESULTS: It was found that office hysteroscopy can be performed in an outpatient setting, without anesthesia. We identify 32 patients with the forbidding cervix with tortuous cannel may associated with extremely difficult embryo transfer. We found forbidding cervix should be indicated the tortuosity of cervix rather than stenosis of cervix. The forbidding cervix had tortuosity ridge (Figure1) and special occult clinical demographic

characteristics (Table 1) Those patients had received cervical dilatation and mocked embryo transfer routes with or without the application of teneculum under general anesthesia leads to an easier subsequent untrasound guided ET (Figure 2) and favorable pregnancy rate. It is worthy to note that we had no patient received hysteroscopic cervical resection.

CONCLUSIONS: There are different clinical meaning exists between cerivcal tortuosity and cervical stenosis. It can be identified easily during office hysteroscopy procedure.

KEY WORDS: office hysteroscopy , forbidding cervix , IVF

PP-006

EVALUATION AND ASSESSMENT

THE ACCURACY OF MRI IN PREDICTION OF MYOMETRIUM INVASION OF STAGE IA ENDOMETRIAL CANCER

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OBJECTIVE: Objective: We review the preoperative MRI in prediction of myometrium invasion degree of clinical Federation International Gynecology Obstetrics (FIGO) staging IA endometrial cancer comparing with the histopathological results after surgery. The association between the accuracy of prediction and other factors (medication, preoperative biopsy or surgery, tumor grading or cell type) will also be discussed in this paper.

METHODS: Method: Preoperative MRI were acquired in 132 patients with clinical staging IA endometrial cancer from 2014 to 2015 in Linkou Chang Gung Memorial hospital. Myometrium invasion degrees documented in the MRI reports were compared with myometrium invasion percentage of subsequent histopathological reports of the hysterectomy specimen.

RESULTS: Results and conclusion: the final results and conclusion will be reported later.

CONCLUSIONS: Results and conclusion: the final results and conclusion will be reported later.

KEY WORDS: MRI , endometrial cancer , myometrium invasion

PP-007

ONCOLOGY

LAPAROSCOPIC METASTASECTOMY FOR RECURRENCE OF UTERINE LEIOMYOSARCOMA

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OBJECTIVE: To present a case who receive transcervical resectoscopic myomectomy and pathology revealed smooth muscle tumor of uncertain malignant potential at first. However, recurrence was obtained as leiomyosarcoma and she received two times of laparoscopic metastasectomy.

CASE REPORT: A 47 years old, gravida 1, para 0, unmarried female who accepted transcervical resectoscopic myomectomy in 2014 and pathological report showed smooth muscle tumor of uncertain malignant potential. However, she accepted transcervical resectoscopic myomectomy again 8 months later and leiomyosarcoma was obtained this time. Abdominal total hysterectomy, bilateral salpingectomy, bilateral pelvic lymph node dissection, and omentectomy was undertaken thereafter.
After operation, 6 courses of chemotherapy with Gemcitabine (800 mg/m2) and Docetaxel (80 mg/m2) were performed. However, recurrence was obtained by CT scan in 2016/02 and laparoscopic metastasectomy was arranged.
During the operation, dense adhesion was found between tumor and transverse colon. We converted to mini-laparotomy and consulted proctologist for bowel resectional and anastomosis. Pathology showed metastatic leiomyosarcoma with invasion to muscularis propria of colon.
Pazopanib was suggested after surgery. But recurrence was still occurred on 2016/07. laparoscopic metastasectomy was performed on 20160808. Total 10 metastatic sites were identified via laparoscopy. Tumor were located at left lateral ligament, left pelvic side wall, right IP ligament near overy, presarcal area,intestinal mesentery, fasiform ligament. And the largest one over sub-umbilical retroperitoneal area, about 3.8 cm. Tumor resection was done by laparoscopy. Final pathology showed metastatic leiomyosarcoma.

CONCLUSIONS: Uterus smooth muscle tumors of uncertain malignant potential was a heterogeneous group when these tumors cannot be histologically diagnosed as definitively benign or malignant. It may have some characteristics of leiomyosarcoma. Limited data demonstrate that a significant difference in the molecular expression and localization between leiomyosarcoma and STUMP. Laparoscopic surgery seems to be an efficient method of diagnosis and treatment for metastasis.

PP-008

ONCOLOGY

HYSTEROSCOPIC DIAGNOSIS OF MYOMETRIAL INVASION FOR THE HORMONAL TREATMENT IN CASES WITH ENDOMETRIAL CANCER

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OBJECTIVE: The indication of high dose progesterone therapy using medroxyprogesterone acetate (MPA) for atypical endometrial hyperplasia (AEH) or stage IA endometrioid adenocarcinoma G1 (EMG1) is without myometrial invasion. Myometrial invasion is not acceptable for hormonal therapy.

Atypical polypoid adenomyoma (APAM) sometimes co-exists with AEH or endometrial cancer. It is often difficult to assess myometrial invasion by preoperative imaging in APAM complicated with endometrial cancer. We encountered four patients for whom we clarified myometrial invasion by hysteroscopic resection and could therefore preserve fertility.

METHODS: Four patients who were pathologically diagnosed as AEH or EMG1 co-existing with APAM, and myometrial invasion was suspected by pelvic MRI were enrolled. After obtaining informed consent, patients underwent hysteroscopic resection and curettage. We examined the intra-uterus with a 4mm x 12° hysteroscope after dilation of the cervical canal. Then, (1) removed the polypoid lesion, (2) removed a 3-5mm-thick layer of normal inner membrane at the root of the polypoid lesion, and finally (3) performed total curettage. Each resected specimen was subjected to the following respective pathological examinations: (1) pathological diagnosis of the primary tumor, (2) examination of the presence or absence of myometrial invasion, and (3) definite diagnosis of APAM complication in the endometrial lesion.

RESULTS: All patients underwent hysteroscopic resection and total curettage. The pathological diagnosis of the lesion co-existing with APAM were as follows: AEH in patient 1 and 2, and EMG1 in patient 3 and 4. No myometrial invasion in the resected root specimen (2) were observed, therefore hormonal therapy was initiated in all cases. Preoperative findings suggestive of myometrial invasion disappeared in contrast-enhanced MRI conducted after starting MPA therapy. After oral administration of MPA (600 mg, three times daily) for 5-7 months, primary tumor disappeared pathologically in all patients. EMG1 patients 3 and 4 had intrauterine recurrence after MPA therapy and underwent repeated MPA therapy, however all patients conceived after MPA therapy.

CONCLUSIONS: In patients with APAM co-existing with AEH or EMG1, hysteroscopic resection may contribute to accurate diagnosis when myometrial invasion is suspicious on preoperative diagnostic imaging.

KEY WORDS: Endometrial cancer , Atypical polypoid adenomyoma , Hysteroscopic surgery

PP-009

ONCOLOGY

A SUCCESSFUL CASE OF YOUNG PATIENT WITH ENDOMETRIAL CANCER FOR PRESERVING FERTILITY BY TRANS CERVICAL RESECTION (TCR) OF GIANT INTRAUTERINE TUMOR

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OBJECTIVE: It is often difficult to correctly diagnose myometrial invasion (MI) using MRI in young patients who are going to receive fertility-preserving high-dose medroxyprogesterone acetate (MPA) therapy for endometrial cancer presenting with equivocal findings suspicious of MI. We experienced a young patient with giant intrauterine tumor of 9x6cm in diameter who had been pre-operatively diagnosed as atypical endometrial hyperplasia, complex (AEHC) with equivocal MI findings in MRI. We report the useful ness of TCR in resecting intrauterine tumor and evaluating MI.

METHODS: A 29 y/o female patient, 0 gravida, was introduced to our hospital under the diagnosis of AEHC. MRI revealed a protruding tumor measuring 9x6cm in diameter at the isthmus with equivocal MI findings. Endometrial biopsy revealed AEHC with findings suspicious of endometrioid adenocarcinoma G1. PET-CT showed abnormal FDG accumulation only in endometrial cavity and no finding of extrauterine metastasis. The patient strongly desired for fertility-preserving. We tried to remove the giant tumor by TCR and also tried to evaluate the MI by resecting tumor with basal myometrial tissues with depth of 3 mm, and pathologically evaluated MI by using cytokeratin immunohistochemistry (IHC).

RESULTS: Intrauterine tumor was completely resected with 300g blood loss and with no need of hemostasis of IVR. Pathological examination with IHC revealed the finding of endometrioid adenocarcinoma G1 with no apparent MI. Repeated MRI showed the complete disappearance of the tumor and the equivocal finding of MI at the isthmus. The patient is now in the course of high-dose MPA therapy.

CONCLUSIONS: Prior to MPA therapy, TCR is thought to be useful for evaluating MI in patients with suspicious MI findings of MRI. In this young patient, TCR played an important role in resecting the giant tumor and also in diagnosing pathologically no MI, resulting in successful fertility-preservation.

KEY WORDS: endometrial cancer , fertility-preserving , trans-cervical resection

PP-010

ONCOLOGY

COMPARISON OF THE ROBOT-ASSISTED VERSUS CONVENTIONAL LAPAROSCOPIC SURGERY FOR ENDOMETRIAL CANCER

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OBJECTIVE: The aim of this study was to compare perioperative outcomes between robot-assisted surgery and conventional laparoscopic surgery for the treatment of endometrial cancer.

METHODS: From September 2013 to July 2016, 30 patients (10 treated by robot-assisted and 20 by conventional laparotomy) diagnosed with endometrial cancer were enrolled. This was a retrospective cohort review of endometrial cancer surgically staged in the Department of Obstetrics and Gynecology, Okayama University Hospital.

RESULTS: The two groups did not significantly differ in patient age, body mass index. No differences between the surgical cohorts were observed in relation to cancer status, including stage, grade, myometrial invasion, lymphovascular space invasion, lymph node involvement, and perioperative

complications. The conventional laparoscopic approach had less estimated blood loss, shorter operative time, and number of removed lymph nodes. All surgeries were performed without conversion to open surgery.

CONCLUSIONS: Our results showed that both the conventional laparoscopic method and robot-assisted surgery for endometrial cancer were technically feasible.

KEY WORDS: endometrial cancer , laparoscopic surgery , robotic surgery

PP-011

ONCOLOGY

ROBOTIC SINGLE-SITE STAGING OPERATION FOR EARLY-STAGE ENDOMETRIAL CANCER: INITIAL EXPERIENCE AT A SINGLE INSTITUTION

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OBJECTIVE: To evaluate the safety, feasibility and clinical results of the robotic single site staging operation for early stage endometrial cancer

METHODS: Patients with a preoperative diagnosis of endometrial cancer (International Federation of Gynecology and Obstetrics stages IA to IB) were selected from an endometrial curettage and preoperative imaging study at the Dongsan Medical Center at Keimyung University from March 2014 to November 2015. All surgical procedures were performed by robotic single-site instruments (da Vinci Si® surgical system, Intuitive Surgical, Sunnyvale, CA) and included hysterectomy, salpingo-oophorectomy, bilateral pelvic node dissection, and cytology aspiration.

RESULTS: A total of 15 women with early-stage endometrial cancer underwent the robotic single-site staging operation. The median patient age and body mass index were 53 years (range, 37-70 years) and 25.4 kg/m2 (range, 18.3-46.4 kg/m2), respectively. The median docking time, console time, and total operative time were 8 min (range, 4-15 min), 75 min (range, 55-115 min), and 155 min (range, 125-190 min), respectively. The median retrieval of both pelvic lymph nodes was 9 (range, 6-15). There were no cases of conversion to laparoscopy or laparotomy. There was one major complication of a postoperative incisional hernia, which occurred in one patient after 5 months. This patient underwent surgical repair with bilayer mesh.

CONCLUSIONS: Robotic-assisted, single-site staging operation is feasible and safe in patients with early-stage endometrial cancer. In this study, operative times were reasonable and the surgical procedure was well tolerated by the patients. Further evaluation in patients with early-stage endometrial cancer should be performed in large-scale comparative studies using the laparoendoscopic, single-site staging operation to confirm the safety and benefits of the robotic single-site staging operation for early-stage endometrial cancer.

KEY WORDS: Single Site , Endometrial cancer , Robotic Surgery

PP-012

ONCOLOGY

VAGINAL APPROACH (COLPOTOMY AND TUMOR EXTRACTION) IN ROBOTIC RADICAL HYSTERECTOMY SHOULD BE A PREFERRED METHOD IN BULKY CERVICAL CANCER: A STUDY OF 31 CASES

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OBJECTIVE: We evaluated the recurrence rate and pattern of patients with cervical cancer who had underwent robotic radical hysterectomy through vaginal colpotomy (RRH-V) or robotic radical trachelctomy through vaginal colpotomy (RRT-V). And, other surgical and oncological outcomes were also evaluated.

METHODS: From January 2012 to May 2015, 31 patients had underwent RRH-V or RRT-V by a single gynecologic oncologist. Patients' clinicopathologic findings, surgical results, and oncological outcomes were retrospectively reviewed.

RESULTS: Twenty eight patients with stage IB1, IB2, IIB cervical cancer and three patients with stage IB1 underwent RRH-V and RRT-V, respectively. The median age of all patients was 43 years (range, 27-62 years). And median total operative time and vaginal approach time were 277 minutes (range, 165-522 minutes), and 20 minutes (range, 10-39 minutes), respectively. Median estimated blood loss was 200 ml (range, 50-700 ml). Median postoperative hospital stay was 7 days (range, 5-11 days). None of the patients experienced intraoperative complications. Fifteen patients (48.4%) experienced postoperative complications but the most common postoperative complication was voiding difficulty and was transient. A median distance from tumor to vaginal cuff were 3 cm (range, 1.5-4.5 cm). At a median 11 months of follow-up (range, 3-44 months), no recurrence or death were found.

CONCLUSIONS: Robotic radical hysterectomy combined with vaginal approach in patients with cervical cancer is a feasible and safe surgical procedure. Low local recurrence rate compared with historical control suggests that tumor spillage could be prevented by vaginal approach in robotic radical hysterectomy. Large multicenter prospective study with longer follow-up duration is warranted.

KEY WORDS: robotic radical hysterectomy , robotic radical trachelectomy , cervical cancer recurrence

PP-013

ONCOLOGY

A SINGLE CENTER EXPERIENCE ON ROBOT-ASSISTED RADICAL HYSTERECTOMY

AND PELVIC LYMPH NODE DISSECTION: THE IMPACT OF LEARNING CURVE ON COMPLICATIONS AND PAIN ASSESSMENT

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OBJECTIVE: To trace the learning curve of the robot-as sisted radical hysterectomy of clinical stageIA2-IIA1 cervical cancer patients at Fudan University Affiliated Ob&Gyn Hospital. Sought to assess the impact of learning curve between different experienced gynecologist in regards to surgery time, blood loss, pathology, complications and Foley catheter.

METHODS: From 2015.Feb to 2016.Feb., a total of 121 consecutive patients who required having minimal invasive surgery of cervical cancer (stage Ia2-IIb1) were treated by robot-assisted surgery at our center. We traced the learning curve of 3 qualified gynecologic surgeons doing robotic surgery with extensive experience of open and laparoscopic surgery. Also, The comparison between the 3 subgroups along with time(subgroup1: case1-40, subgroup2: case41-80, subgroup3: case81-121) were conducted.Clavien complication system was applied to classify the complications. Data of surgery were collected and analyzed.

RESULTS: Results: The results showed a safe learning curve in regard to the surgery time, blood loss and pathologic results. The difference between 3 surgeons was not significant. The surgery time and blood loss drop significantly along time(P=0.025). Overall, 25 complications were reported in 14 of 93 patients and significantly decreased after 60 procedures. Minor complications (Clavien grades 1-2) represented the most frequent events, with a significant drop in group 3 (P =.001). The postition related injury is evaluated along the time, which decrease is significant(p=0.023).

CONCLUSIONS: Surgeons with extensive open and laparoscopic experience present a safe learning curve in regard to robot-assisted radical hysterectomy and pelvic lymph node dissection. No detrimental effect is to be expected. The results also demonstrate there is no defect for robot-assisted radical hysterectomy and extended pelvic lymph nodes dissection along the time counts.

KEY WORDS: robot-assisted surgery , cervical cancer , learning curve

PP-014
ONCOLOGY

HAND-ASSISTED ROBOTIC APPROACH FOR OVARIAN CANCER MANAGEMENT

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OBJECTIVE: To demonstrate a hand-assisted robotic approach for managing ovarian cancer with large tumor mass and predominantly solid components, where mini-laparotomy is performed followed by robotic surgical staging procedures.

METHODS: Retrospective descriptive analysis, from December 2011 to May 2014, of 29 ovarian cancer patients who had a large tumor mass (≥ 7 cm) and received laparoscopic surgical staging, traditional robotic surgical staging or hand-assisted robotic procedures, reviewed for patient demographics, surgical procedures, and peri-operative parameters. Ovarian cancer staging surgical procedures were performed by laparoscopy, traditional robotic-assisted surgery or hand-assisted robotic surgery. Hand-assisted robotic surgical staging includes a vertical midline mini-laparotomy incision, 3 to 5 cm in length, to first be performed. Cystectomy or partial oophorectomy was then carried out for frozen section. If results showed malignancy, robotic staging surgery procedures were then performed.

RESULTS: All enrolled patients were reviewed for patient demographics, surgical procedures and peri-operative parameters. Among all the groups, a total of 10 women had prior surgical history, comprising 33.3%, 36.4% and 30.8% of the robotic surgical staging, hand-assisted robotic surgical staging and laparoscopic surgical staging groups, respectively. For the hand-assisted surgical staging group, the mean operation time was 185.8±45.3 min; mean blood loss was 145.5±119.3 mL; average time to full diet resumption was 1.7±0.8 days, and the mean hospital stay was 3.4±1.5 days. These results were all comparable to the group of patients who underwent traditional robotic surgical staging procedures. Post-operative complications were not observed among all patients.

CONCLUSIONS: The hand-assisted robotic approach offers a safe and feasible way to perform ovarian cancer surgical staging for patients with large tumor mass and predominantly solid components.

KEY WORDS: Robotics , Ovarian cancer , Staging surgery

PP-015
ONCOLOGY

FIRST EXPERIENCE IN ROBTIC NERVE SPARING RADICAL HYSTERECTOMY USING DA VINCI XI DUAL CONSOLE SYSTEM.

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OBJECTIVE: To demonstrate the first experience of robotic surgery by an laparoscopic experience surgeon. A case of nerve sparing radical hysterectomy using dual console system was presented.

METHODS: A 38 y/o, G0P0, female patient, diagnosed with cervical adenocarcinoma, stage Ib1, received robotic nerve sparing radical hysterectomy using da Vinci Xi Dual console system.

RESULTS: The operation time was 6 hours and 30 minutes. Estimated blood loss was minimal. She was able to void smoothly 7 days after operation and was discharged smoothly.

CONCLUSIONS: Da Vinci Xi Dual console system is effective for beginner even when difficult case such as nerve-sparing radical hysterectomy was performed as the first initial case.

KEY WORDS: Dual console , Robotic , nerve sparing radical hysterectomy

PP-016

ONCOLOGY

APPLICATION OF NEGATIVE PRESSURE WOUND THERAPY (NPWT) PREVENA ON A PATIENT OPERATED FOR RADICAL VULVECTOMY WITH BILATERAL LYMPH NODE DISSECTION TO PREVENT EARLY COMPLICATIONS

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OBJECTIVE: Vulvectomy, often associated with inguinal lymphadenectomy, is an important step in the treatment of vulvars neoplasms. Complications for this type of surgery is very frequent, particularly in the short term. Utilization of negative pressure wound therapy (NPWT) such as Prevena™, applied preventively and directly on wounds, has shown efficacy in reducing postoperative morbidity in several studies after bariatric surgery, orthopedic surgery or cardiovascular surgery, particularly in patients at risk (diabetes, obesity, advanced age...). We used this device in prevention in one of our patients, after surgery for a vulvar cancer, to determine whether it is possible to use this device for vulvo-inguinal surgery.

METHODS: We operated a patient for vulvar squamous cell carcinoma. We realized a radical vulvectomy with bilateral inguinal lymph node dissection. Two Redon drains were set up at the site of vulvectomy, one in the left inguinal lymphadenectomy and the other in the right inguinal lymphadenectomy, as well as an indwelling urinary catheter for a month. We have set up a Prevena™ dressing directly on the wound. The device was removed after 5 days. We observed a clean scar, without any sign of disunity or evidence of surgical site infection. Then we started local wound care twice a day initially, then 1 time a day.

RESULTS: One month after the operation, wound healing showed no complications on the site of vulvectomy. We observed a discreet seroma on the left lymhadenectomy. Gaarenstroom and al showed a complication of 18% for vulvectomy (mainly disunity and/or surgical sites infections and/or seroma) and of 57% for inguinal lymphadenectomy. Used preventively, NPWT might help reduce these high rates of complication by helping the evacuation of blood and lymph through the scar. It allows, anyway, a perfect occlusion of wound several days without the need for dressing changes. It isolates, effectively, the wound from aggression by skin, bladder or rectum germs that could colonize it.

CONCLUSIONS: The use of NPWT in the case of inguinal/vulvar surgery, which is known as a high-risk surgery, is doable and could reduce the rate of complications inherent to this type of surgery, costly to society. The results of this patient are encouraging and we have noted no complications one month after surgery except a discreet seroma that did not required additional treatment. Multicentric randomized controlled trials should be conducted to validate the indication of the use of Prevena™ in the inguinal/vulvar surgery.

KEY WORDS: vulvectomy , Negative pressure wound therapy , complications

PP-017

ONCOLOGY

EVALUATION OF THE MANAGEMENT OF ENDOMETRIAL CANCER IN A REGIONAL HOSPITAL

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OBJECTIVE: This retrospective study was made to evaluate the quality of the management of endometrial cancer in our institution (CHwapi Tournai)

METHODS: This is a retrospective study using databases of the hospital CHwapi-Tournai, including patients with a pre or post-operative diagnosis of endometrial cancer from 2008 to 2014. We compared our study to a recent similar french study which is representative of the quality of the management of endometrial neoplasms in reference centers.

RESULTS: One hundred and six patients were included in our study. Among these patients, 84.3% of patients underwent preoperative histology and 87.8% benefit a complementary imaging. Ninety-six patients (90.6%) were operated. Surgery was consistent with the recommendations in 70.8% of cases. Regarding adjuvant treatments, they were consistent with the guidelines in 75.4% of cases. The overall survival at 5 years for the patients cared from 2008 to 2010 was 70%.

CONCLUSIONS: Regarding our results, if patients are properly presented in multidisciplinary oncology meeting (involving pathologists, radiologists, oncologists, radiotherapists and surgeons) and whether international guidelines are followed for surgical treatments and potential adjuvant therapies, it is reasonable to assert that the institutions that meet these criteria can continue to support patients with endometrial neoplasm.

KEY WORDS: neoplasm , endometrial , management

PP-018

ONCOLOGY

A REPORT OF LAPAROSCOPIC SURGERY FOR EARLY STAGE ENDOMETRIAL CANCER IN OUR HOSPITAL

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OBJECTIVE: The purpose of this report is to evaluate the prognosis in laparoscopic surgery for early stage endometrial cancer in our hospital.

METHODS: 28 endometrial cancer patients underwent laparoscopic surgery in our hospital from June 2016 to December 2012. They had been expected as Stage1A on their diagnostic imaging and their endometrial tissue was endometrial adenocarcinoma Grade1 or 2. The patients with Stage more than 1A, endometrial adenocarcinoma G3 and special type were excluded from the adapted. Basic surgery was laparoscopic total hysterectomy and both salpingo-oophorectomy. The tumor size is larger cases were performed semi-radical hysterectomy. In addition, all patients underwent intraoperative pathological examination. If the tumor has invaded the muscle layer, we added lymph node dissection in her pelvic. Only if the invasion depth was more than the half of myometrium, we converted laparoscopic surgery into abdominal surgery and added pelvic lymph node dissection and para aortic lymph node dissection.

RESULTS: Semi-radical hysterectomy was performed in 2 cases and pelvic lymph node dissection was performed in 6 cases. There was no case that needed conversion into open surgery. We didn't recognized serious complications up to now. In addition, recurrence case in 28 cases is only one case.

CONCLUSIONS: Laparoscopic surgery can be a safe and effective method in the surgical treatment of early endometrial cancer.

KEY WORDS: Laparoscopic surgery , endometrial cancer

PP-019

ONCOLOGY

THREE PATIENTS WITH ATYPICAL ENDOMETORIAL HYPERPLASIA/ ENDOMETRIAL CANCER WHO UNDERWENT LAPAROSCOPIC SURGERY IN ORDER TO BE DIAGNOSED AS DOUBLE CANCER OF OVARY

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OBJECTIVE: High dose medroxyprogesterone acetate therapy (MPA therapy) is useful for young patients with atypical endometrial hyperplasia (AEH) or endometorioid adenocarcinoma (EC), those who hope preserving fertility. However, there are about 5% of patients with EC to develop another cancer. We report the cases on which laparoscopic surgery were performed in order to diagnose whether ovarian tumor is malignant or not and to decide the indication of MPA therapy for AEH or EC.

METHODS: We evaluated three patients who were diagnosed as suspicious ovarian cancer, those who underwent laparoscopic surgery before or after MPA therapy for AEH or EC at our institution. We analyzed the clinico-pathological factors and prognosis retrospectively. In principle, laparotomy was performed for patients with strongly suspicious ovarian malignancy by diagnostic imaging: contrast enhanced pelvic MRI and thoraco-abdominal CT. If the patients who underwent laparoscopic surgery were diagnosed as ovarian cancer by intraoperative pathological diagnosis, the operative procedure was changed to staging laparotomy at our institution. Case1: A right ovarian tumor of 3 cm in diameter with solid part was detected by follow-up ultrasound imaging and pelvic MRI three years after from MPA therapy in 44-year-old patient with AEH.

RESULTS: We performed laparoscopic right salpingo-oophorectomy and diagnosed as right ovarian cancer by intraoperative frozen pathologic diagnosis, so we performed primary staging laparotomy including hysterectomy, left salpingo-oophorectomy, omentectomy and retroperitoneal lymphadenectomy. Case2: A left ovarian tumor of 7cm in diameter with solid part was detected by ultrasound imaging and pelvic MRI in 36-year-old patient with early EC who hoped to undergo MPA therapy to preserve fertility. We performed laparoscopic left salpingo-oophorectomy and diagnosed as left ovarian cancer. A few weeks later, we performed primary debuluking surgery including hysterectomy, right salpingo-oophorectomy, omentectomy and retroperitoneal lymphadenectomy.Case3: A normal size left ovarian tumor having contrast effect on MRI imaging was detected in 39-year-old patients with AEH.

CONCLUSIONS: We performed laparoscopic left salpingo-oophorectomy and partial omentectomy and endometorial total curettage. We diagnosed as having ovarian cancer stage (endometrioid adenocarcinoma G2)and AEH. Since she had strong desire to preserve fertility, we obtained informed consent about high risk of recurrence then started MPA therapy after 2 months from the operation. The endometrial lesion disappeared 4 months later, and there is no recurrence of ovarian and intrauterine lesions now. We need to keep in mind that ovarian malignant tumor might occur in patients with AEH or EC, therefore we should checked adnexal lesions strictly by ultrasound imaging or pelvic MRI before, during, and after MPA therapy. If we detect ovarian tumor with solid part, rapid growth, and contrast effect on MRI, it is important to evaluate malignancy. To do this, the diagnostic laparoscopic surgery is well worth trying.

KEY WORDS: MPA therapy , laparoscopic surgery , double cancer

PP-020

ONCOLOGY

TWO CASES OF UNEXPECTED OVARIAN CANCER FOLLOWING LAPAROSCOPIC SURGERY OF OVARIAN MASS

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OBJECTIVE: Laparoscopic surgery has been widely recognized as the gold standard in the management of adnexal masses for which malignancy can be excluded preoperatively. We experienced two cases of unexpected ovarian cancer which underwent laparoscopic surgery as benign tumor.

METHODS: Case.1: 65 years old, she was detected 6cm diameter ovarian mass by CT. She had no complaints of gynecologic part. The ovarian mass was predicted mucinous adenoma by CT. she had allergy of contrast agent. She could not have further examination. She was underwent laparoscopic salpingo-oophorectomy. She was diagnosed endmetrioid adenocarcinoma of bilateral ovary. She had devulking surgery and had 6 courses of chemotherapy. Case.2: 46 years old, she had tubo-ovarian abscess with pelvic inflammatory disease.She was underwent

emergency laparoscopic surgery for drainage with left salpingo-oophorectomy for PID. She was diagnosed endometrioid adenocarcinoma. She have devulking surgery and had 6 courses of chemotherapy.

RESULTS: Laparoscopic surgery of an unexpected ovarian malignancy, cyst rupture is a particular concern because rupture may result in upstaging and changes to the subsequent treatment plan. Furthermore improper and delayed surgical staging may also adversely affect the patient's prognosis.

CONCLUSIONS: We should evaluate adequate diagnosis for unexpected ovarian cancer before laparoscopic surgery.

KEY WORDS: Ovarian cancer , laparoscopic surgery

PP-022

ONCOLOGY

SHOULD WE COLONOSCOPE WOMEN BEFORE CYTOREDUCTION? DIFFICULTY IN DIAGNOSIS AND DIFFERENT PROGNOSIS BETWEEN COLORECTAL CANCER WITH OVARIAN METASTASIS AND ADVANCED OVARIAN CANCER

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OBJECTIVE: To determine the clinical manifestations and optimal management of female patients with advanced colorectal cancer (CRC) metastasis in ovaries mimicking advanced ovarian malignancy.

METHODS: A retrospective medical records review of female patients with primary CRC metastasis to ovaries, which were initially diagnosed as ovarian malignancy and, treated between 2001 and 2013. Clinical presentations, pathologic findings, and treatment outcomes were analyzed.

RESULTS: Totally 19 cases were collected in the study through a hospital tumor registry. The mean age of patients at the time of diagnosis was 45 years old (range 28–63 years old). The most common symptoms were abdominal pain or increased abdominal girth (63%). None of them had rectal bleeding. The ratio of CA-125 to CEA was available in 13 out 19 patients (less than 25 in 76.9%). Barium enema or colonoscopic exam was only performed in 10 outpatients. None of them had a positive finding. All 19 patients went for surgery, all of them had ovarian metastasis but only 8 of them had bilateral involvement, and 14 of them had carcinomatosis. All went for either optimal cytoreduction surgery or suboptimal cytoreduction surgery. The patients who received optimal cytoreduction surgery had a significant better progression-free and overall survival than those who did not.

CONCLUSIONS: Clinical manifestations of primary CRC with ovarian metastasis may be confused with advanced ovarian cancer. Negative barium enema or colonoscopic exam cannot rule out the possibility of CRC. For patients with a CA-125 to CEA ratio less than 25, 76% are good reference of CRC metastasis to ovaries. Optimal cytoreduction surgery like that used for treating with advanced ovarian cancer had a better prognosis than suboptimal cytoreduction colorectal cancer treatment.

KEY WORDS: Colorectal cancer , Ovarian cancer , Ovarian metastasis

PP-023

ONCOLOGY

A CASE OF CHOLANGIOCARCINOMA WITH METASTASIS TO UTERUS AND ADNEXA

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OBJECTIVE: This is a case report of cholangiocarcinoma with metastasis to uterus and bilateral adnexa who underwent single-port laparoscopy to manage with the metastais lesion successfully.

METHODS: A 45-year-old woman, whom umbilicus nodule biopsy showed metastatic adenocarcinoma. Abdominal CT and liver biopsy confirmed intra-hepatic cholangiocarcinoma with umbilical metastasis, cT1NxM1, stage IV. Single-port laparoscopic excision of tumors was performed on May 23, 2014. Recurrence was found in April, 2015 with metastasis to uterus, adnexa and umbilicus abdominal wall. We performed single-port laparoscopy total hysterectomy and bilateral salpingo-oophorectomy . The defect over umbilical area was repaired with Dual mesh. The latest follow-up in September, 2015 showed recurrent tumor over pelvis.

RESULTS: Intra-hepatic cholangiocarcinomas most commonly metastasize to other intra-hepatic locations, to the peritoneum, and subsequently to lungs and pleura. Metastasis to uterine or adnexa is rare. Even for other kinds of cholangiocarcinomas, such as peri-hilar or distal type, metastasis to gynecology area are also rare. To minimize the trauma related to surgery, we utilized the wound which was left after excising the tumor over umbilical area to achieve our goal to remove uterus and adnexa.

CONCLUSIONS: Single-port surgery is an adequate and minimally invasive method in gynecologic field and is suitable for patients who have a tumor over umbilical area and require laparoscopic surgery at the same time while excising the umbilical tumor.

KEY WORDS: A case of cholangiocarcinoma with metastasis to uterus and adnexa

PP-024

ONCOLOGY

TWO CASES OF FALLOPIAN TUBE CANCER DIAGNOSED CONSEQUENTLY TO LAPAROSCOPIC SURGERY

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OBJECTIVE: Early detection and treatment of fallopian tube cancer is a clinical challenge. Here, we report our experience of two fallopian tube cancer cases that were diagnosed consequently to laparoscopic surgery, and successfully converted to staging laparotomy.

METHODS: N/A.

RESULTS: Case 1 is a 54-year-old female who presented with acute abdominal pain. Pelvic exam, ultrasonography and CT scan revealed a painful right adnexal mass 3 centimeters in diameter, suspicious of ovarian tumor stem torsion. Emergent laparoscopic operation was performed, which revealed a normal right ovary, distorted right fallopian tube, and tumorous tubal fimbriae. The frozen rapid pathologic diagnosis was adenocarcinoma of the fallopian tube, and thus the patient was converted to staging laparotomy. The final diagnosis was serous adenocarcinoma of the right fallopian tube, stage IIIC. Case 2 is a 52-year-old female who was referred for abnormal endometrial cytology. Ultrasonography and MRI scan revealed normal findings of the endometrium and bilateral adnexa, and no endometrial mass was detected by hysteroscopy, suggesting a malignant tumor of an origin other than the endometrium. Diagnostic laparoscopy was applied, which disclosed minimal nodular lesions less than 5 millimeters in diameter on the surface of bilateral ovaries. Frozen section of ovary was diagnosed as serous adenocarcinoma, and the patient was converted to staging laparotomy. Comprehensive pathological diagnosis revealed serous adenocarcinoma of the left tubal fimbriae. The final diagnosis was serous adenocarcinoma of the left fallopian tube, stage IIIA. Both cases underwent adjuvant chemotherapy.

CONCLUSIONS: Preoperative diagnostic strategies in an emergent situation is limited, and even a thorough evaluation may be inefficient to detect fallopian tube cancer. Exploratory laparoscopic surgery combined with frozen section is a useful strategy when adnexal mass is suspected and the judgment between benign and malignancy is uncertain preoperatively.

KEY WORDS: Fallopian tube cancer , Diagnostic laparoscopy

PP-025

ONCOLOGY

ENDOCERVICAL CARCINOMA: OBSTACLES TO DIAGNOSE AND CHALLENGES IN TREATMENT, A REPORT OF 3 CASES

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OBJECTIVE: Endocervical carcinoma is a rare disease and associated with difficulties in early diagnosis. Even though the past two decades have seen an increase incidence of the endocervical carcinoma, reports of this disease are still under expectance. Early diagnosis is hard due to the location of lesion may be an obstacle of detection by direct biopsy. Tough Pap smear or HPV test revealed positive, biopsy and histopathology results are still the golden standard.

METHODS: We reported three endocervicle carcinoma cases from Chang Gung memorial hospital. They had reactive Pap smear findings and no malignancy cell noted by biopsy, but finally turned out to be endocervicle carcinoma.

RESULTS: Case 1 is minimal deviation type adenocarcinoma, which is even harder to distinguish malignancy cell by histopathology. The patient is the first user of the new targeted therapy of Pazopanib in our hospital. Case 2 is squamous cell carcinoma. Rapid growth of an endocervical nodule was found by sonography while tracing back. Case 3 combined adenocarcinoma and squamous cell carcinoma of endocervix. Early detection was achieved due to high awareness of atypical glandular cell found by Pap smear. Among the three patients, progressing in awareness make the prognosis totally different.

CONCLUSIONS: For patients with Pap smear serial reactive or any sonography endocervix nodule, the concern with endocervical carcinoma should be keep in mind even though cervix biopsy remains normal.

KEY WORDS: endocervical adenocarcinoma; endocervical squamous cell carcinoma; endocervical nodule; minimal deviation adenocarcinoma; gastric-type endocervical adenocarcinoma; Pap smear; cervicle cancer screening

PP-026

ONCOLOGY

RECURRENCE OF SEROUS BORDERLINE OVARIAN TUMOR IN A YOUNG NULLIGRAVID POST FERTILITY PRESERVATION SURGERY

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OBJECTIVE: Borderline Ovarian Tumor (BOT) is a non-invasive tumor with uncertain malignant potential. It usually occurs in younger patients at an earlier stage and has better prognosis. The management of this younger group of patients is controversial for while we need to make sure that radical surgery has been performed to ensure better prognosis and survival of the patient, the issue of preservation of fertility is equally important for these young women.

METHODS: This video presents the case of a 24 year-old nulligravid who was diagnosed with Serous BOT 2 years ago and had already had a fertility preservation surgery. She had close follow-up with ancillary procedures done regularly. Recent sonography showed suspicious cystic left ovary and an increase in Ca-125 levels. High index of suspicion led to another laparoscopic surgery.

RESULTS: Frozen section showed recurrence of Serous BOT.

CONCLUSIONS: Recurrence can occur but is usually also a borderline tumor. As long as patient desires to preserve her fertility and can comply with long-term follow-up, fertility preservation surgery can be performed. Chemotherapy is not required but, as stated before, disease may recur so completion surgery should be performed once family has been completed

KEY WORDS: serous borderline ovarian tumor , fertility preservation , recurrence

PP-027

ONCOLOGY

PROMISING TUMOR REMISSION AFTER GASLESS LAPAROSCOPIC OPERATION WITH IMMUNOMODULATORY THERAPY FOR LATE RELAPSE OF LOCALLY ADVANCED CERVICAL ADENOCARCINOMA

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OBJECTIVE: The prognosis of patients with metastatic cervical cancer is poor, with a median survival of 8–13 months. Treatment with chemotherapeutic drugs alone is rarely curative. In the past few years, the development of immunotherapy, targeted therapy, angiogenesis inhibitors, and tyrosine kinase inhibitors has provided better treatment choices for patients with metastatic cervical cancer.

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CASE: A 52-year-old woman was diagnosed on July 2001, with locally advanced adenocarcinoma of cervix, stage IIb. She underwent concurrent chemoradiotherapy resulting in complete remission for over 10 years. Unfortunately, she was found to have a late relapse of cervical adenocarcinoma with liver metastases (segments 7, 8) on June 2013. She underwent segmental hepatectomy and cholecystectomy and was transferred to our gynecologic oncology service for standard chemotherapy with immunotherapy based on her immune risk profile (IRP). Immunomodulatory agents, including picibanil (OK-432), interferon-alpha, celecoxib (cyclooxygenase-2 inhibitor), thymalfasin, and aldesleukin (IL-2) were given.
Approximately 20 months later, spleen metastasis was suspected by [18F] fluoro-2-deoxy-D-glucose positron emission tomography. The patient underwent gasless laparoscopic intraperitoneal treatment with immunomodulatory agent celecoxib (cyclooxygenase-2 inhibitor) and intraperitoneal immunoviral therapy to create host immunosurveillance for consolidation therapy. Three months later, there was complete remission of the metastatic splenic nodule on repeat imaging.

CONCLUSION: Our case demonstrates the dramatic promise of immunomodulatory therapy to induce complete remission of a metastatic cancer nodule. This case suggests the potential value of immunotherapy to augment host immunosurveillance to improve survival of metastatic cervical cancer.

KEY WORDS: cervical cancer, cervical adenocarcinoma, metastatic cervical cancer, liver metastasis, spleen metastatis, immunotherapy, gasless laparoscopic operation

PP-028

CONGENITAL AND ANOMALIES

CONSIDERATION OF TOTAL LAPAROSCOPIC HYSTERECTOMY AS A FORM OF SEX REASSIGNMENT SURGERY FOR GENDER IDENTITY DISORDER

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OBJECTIVE: For patients with gender identity disorder (GID) requiring female to male (FTM) sex reassignment surgery (SRS), gynecologists perform hystero-oophorectomy. We began performing FTM-SRS in 2007, and have experienced 11 cases of total laparoscopic hysterectomy (TLH) + bilateral oophorectomy since 2011 when we employed this type of surgery as SRS for the first time in Japan. This study examined the usefulness of TLH in comparison with conventional total abdominal hysterectomy (TAH).

METHODS: Eleven patients who underwent SRS-TLH (TLH group) and 28 who underwent TAH (TAH group) were compared in terms of their background characteristics and surgical outcomes. Statistical analysis was conducted using the Mann-Whitney U test, and differences were regarded as statistically significant at $p<0.05$.

RESULTS: The surgical time was significantly longer (108.7±26.1 vs 78.7±16.2 min, p=0.0004), and the amount of blood loss was significantly lower (4.3±4.9 vs 142.7±89.5 ml, p=0.00018), in the TLH than the TAH group. Although there were no complications, there was interference with using the vagina as a new urethra in urologic surgery due to vaginal mucosa erosion in some patients who underwent TLH.

CONCLUSIONS: Although patients with GID often have a small vagina and exhibit vaginal atrophy due to androgen therapy, the uterus can be extirpated safely employing suitable techniques. If urologic surgery is to be combined with hysterectomy, the surgical technique should be decided in consultation with urologists.TLH is a useful procedure for FTM-SRS. We aim to extend its indications by further improving this procedure.

KEY WORDS: Total Laparoscopic Hysterectomy , Sex-Reassignment Surgery , Gender identity disorder

PP-029

CONGENITAL AND ANOMALIESES

THREE-DIMENSIONAL ULTRASONOGRAPHY ON VARIANTS OF HERLYN-WERNER-WUNDERLICH SYNDROME AND DIFFERENT OPERATIVE APPROACHES

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OBJECTIVE: To demonstrate detailed process of diagnosis of two cases with Herlyn-Werner-Wunderlich syndrome (HWW syndrome), including three-dimensional ultrasonography, hysteroscopy and MRI studies. Different operative approaches were based on variant classification and degree of obstruction, including metroplasty and transcervical resectoscopy.

METHODS: Data collection from old chart, images and current information from patient at clinic visit.

RESULTS: Two young females were diagnosed as HWW syndrome with typical presentation as progressive dysmenorrheal at few years after menarche. Via ultrasonography, unilateral renal agenesis, obstructive hemivagina and didelphic uterus were confirmed as triad of the special congenital disease, and three dimensional ultrasonogrpahy was used for pre-operative plan. Transcervical resectoscopic(TCR) septectomy is considered the standard treatment of HWW syndrome, but however, cannot be performed simply on these cases. Case 1 had left side renal agenesis, didelphic uterus, left side hematometra and hemivagina without obvious hematocolpos, which made TCR septectomy unable to be performed independently without laparoscopic guidance. Case 2 had left side renal agenesis, bicornuate uterus and left side hypoplastic cervix, which only allows laparoscopic metroplasty to connect two isolated uterine cavity and release obstructive menstrual flow. Both of the patients had complete remission of symptoms after surgery, and following menstruation was also regular and patent.

CONCLUSIONS: HWW syndrome should be considered if obstructive symptoms occurred during menstruation, such as prolonged bleeding or progressive dysmenorrhea. Though MRI was considered as standard diagnostic tool of congenital uterine anomaly before, three-dimensional ultrasonography has gradually taken the place as pre-operative anatomical assessment. Operative strategy should be based on different level of obstruction, and laparoscopy is always suggested to evaluate possible complication of pelvic cavity.

KEY WORDS: Herlyn-Werner-Wunderlich syndrome, congenital uterine anomaly, didelphic uterus

PP-030

CONGENITAL AND ANOMALIES

OHVIRA SYNDROME: UTERUS DIDELPHYS WITH RIGHT HEMIVAGINA OBSTRUCTION AND IPSILATERAL RENAL AGENESIS: A CASE REPORT

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OBJECTIVE: To report a rare case of OHVIRA syndrome

METHODS: A case report

RESULTS: A woman P0A0 29 years old with complaints of dysmenorrhea since one year, lower abdominal pain and a history of amenorrhea 3 months. Menarche age 15 years, regular menstrual cycles. Physical examination, showed normal secondary sexual development, an abdominal mass (-), from the gynaecological examination, obtained one vagina and cervix, mass on the right side of the uterus. History of sexual activity (+). uterus didelphys with right hematocolpos, EL thickness 0,8 cm, GS (-). Patients received Dienogest for 3 months. Laparoscopy showed bilateral peritoneal endometriosis stage I (based on the American Fertility Society), didelphys uterine, both ovaries normal, non-patent right tube, patent left tube. From hysteroscopic showed normal uterine cavity, no connection with the right cavity, normal left tubal ostium, right longitudinal vaginal septum. From 1.5T MRI, obtained didelphys uterine, right hemivagina obstruction, suspected Herlyn Werner Wunderlich syndrome, right renal agenesis.

CONCLUSIONS: OHVIRA syndrome is a rare case. With better diagnostic modalities, this case can be diagnosed. Approximately 15-25% of women with uterine abnormalities have problems with fertility and reproductive function. Resection of vaginal septum is the treatment of choice. Early diagnosis and comprehensive treatment can prevent complications and improve the fertility of the patient.

KEY WORDS: OHVIRA syndrome , Hemivagina obstruction , Ipsilateral renal anomalies

PP-031

CONGENITAL AND ANOMALIESES

RECONSTRUCTION OF THE GENITALIA FOR DIDELPHIC UTERUS AND AGENESIS OF VAGINA

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Introduction: Development of the female genital tract is a complex process dependent upon a series of events. Mistake of any one of these processes results in a congenital anomaly. Dysmenorrhea, menstrual abnormalities, hematocolpos and recurrent preterm delivery might be the hint to diagnose the disease.

CASE REPORT: A 19-year-old female (Gravida 0, Menarche:14y/o) suffered from metrorrhagia and dysmenorrhea repeatedly. She has past history of double uterus with bilateral hematometra, cervical stenosis and vaginal hypoplasia which underwent laparoscopic vaginal plasty in 2013 at local medical department. She denied similar family history or systemic disease. The pelvic examination found suspect upper one-third agenesis of vagina and one pin-point hole which was outlet of bleeding. The chromosome analysis reported normal karyotype of 46, XX. The contrast magnetic resonance imaging of Pelvis and 3-dimension sonography showed didelphic uterus with hematometra, suspect hypogenesis of the left upper third vagina and fornix, left hydrosalpinx, polycystic ovarian disease and agenesis of the right kidney. Then, surgical intervention was prescribed on 2015-07-30. While operation, we found agenesis of vagina with dense adhesion, double uterus with bilateral cervical agenesis, bilateral hematometra and left hematosalpinx with bilateral ovaries which were grossly normal. We dissected the adhesion of vagina, performed laparoscopic bilateral hysterotomy which

guided with uterine Foley via vaginal approach to find lowest portion of uterine corpus and correct endometrial tract. Then, left hemihystecterectomy and left salpingectomy were done due to severe adenomyosis. We reconstructed right hemiuterus and neovagina with bladder peritoneum were also done. The post operation condition was relatively stable. Kept follow up at our gynecological outpatient clinic.

CONCLUSIONS: Congenital female genital tract anomalies are associated with a variety of gynecological and obstetrical problems. Restoration of normal uterine architecture and preservation of fertility are the goals of surgical treatment.

KEY WORDS: didelphic uterus, Congenital female genital tract anomalies, double uterus, laparoscopic reconstruction

PP-032

CONGENITAL AND ANOMALIESES

A CASE OF INGUINAL HERNIA OF A BICORNATE UTERUS ASSOCIATED WITH MAYER-ROKITANSKY-KUSTER-HAUSER SYNDROME (MRKH), SUCCESSFULLY TREATED WITH LAPAROSCOPIC SURGERY

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OBJECTIVE: To report a case of inguinal hernia of bicornate uterus associated with Mayer-Rokitansky-Kuster-Hauser syndrome (MRKH)

METHODS: Case report and the literature review

RESULTS: We laparoscopically treated a case of inguinal hernia of bicornate uterus with Mayer-Rokitansky-Kuster-Hauser syndrome (MRKH). At the age of 19, she was operated a colpoplasty by abdominal approach for vaginal aplasia. Unfortunately, the medical records of the surgery were unavairable. The patient was not informed that she possesses a uterus. She consulted to our hospital with a symptom of right lower abdominal pain and MRI described a right ingunal hernia. We couldn't preoperatively confirm what is a content of hernia, but the laparoscopic surgery clarified her anomaly of MRKH and the right bicornate uterus was herniated into the inguinal canal. And we safely underwent the resection of the herniated uterus with laparoscopic surgery. The hernia orifice was closed with mesh by a separate surgery.

CONCLUSIONS: There are few cases of inguinal hernia of uterus with MRKH. And this seems to be the first case of laparoscopic operation for the resection of herniated uterus in the English literature. Laparoscopic surgery is safe and minimally invasive method for hernia operation. It is an excellent diagnostic method, particularly for the anomaly of pelvic organs, which is difficult to characterize with preoperative imaging.

KEY WORDS: Mayer-Rokitansky-Kuster syndrome , laparoscopic surgery , inguinal hernia

PP-033

CONGENITAL AND ANOMALIESES

CASE REPORT: LAPAROSCOPIC EXCISION OF A RUDIMENTARY UTERINE HORN

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OBJECTIVE: To report a case of a rudimentary uterine horn which presented to our center that was successfully operated on via laparoscopy. To review the current literature on the pathophysiology and epidemiology of rudimentary uterine horns, imaging modalities and surgical techniques and considerations. To describe our surgical technique in the excision of a rudimentary uterine horn.

METHODS: A standard transumbilical open entry laparoscopy was utilised and CO2 was insufflated. Right and left lower quadrant and suprapubic ports were inserted under direct visualisation. The right ureter was identified. The right ovarian ligament and right round ligament were transected using bipolar diathermy. The right uterine artery was ligated at the base of the rudimentary horn using bipolar diathermy. The right rudimentary horn and right fallopian tube were transected from their attachment to the uterus using bipolar diathermy. The small serosal defect on the uterus was repaired using 2.0 Vicryl. The specimen was removed using an EndobagTM through the umbilical port. A pelvic drain was left in-situ and she was commenced on empirical antibiotics.

RESULTS: This is a case of a 34 year old lady with 2 previous caesarian sections, who presented with a 2 year history of worsening right sided dysmenorrhoea. Imaging was performed which showed a unicornuate uterus with a right sided rudimentary horn. She underwent an uncomplicated laparoscopic excision of the right rudimentary horn and recovered well post-operatively.

CONCLUSIONS: Albeit rare, a rudimentary horn should be suspected in cases of delayed onset dysmenorrhoea or progressive abdominal pain presenting in the third decade. Due to its rarity, imaging should be reviewed by an experienced senior consultant in any suspected cases, and an MRI should be the gold standard imaging modality. Imaging should also be utilised prior to surgery to look for any concurrent renal abnormalities and endometriosis, to ensure proper pre-operative planning. Incidental finding of an asymptomatic rudimentary uterine horn either intra-operatively or on imaging should be managed by

elective surgical excision to prevent future gynaecological and obstetric complications. Laparoscopic excision of a rudimentary horn is a relatively straightforward surgery that can be performed by the general gynaecologist with basic training in minimally invasive surgery. MIS surgery results in shorter hospital stay, improved cosmesis and faster return to normal activity levels.

KEY WORDS: rudimentary uterine horn , rudimentary horn , unicornuate uterus

PP-034

CONGENITAL AND ANOMALIESES

TORSION OF THE HYDATIDS OF MORGAGNI DIAGNOSED BY LAPAROSCOPY:A RARE CAUSE OF ACUTE ABDOMINAL PAIN THAT IS SIMILAR IN APPEARANCE TO ACUTE APPENDICITIS

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OBJECTIVE: Hydatids of Morgagni are embryonal remnants of Wolffian ducts, small pedunculated cysts of the fimbriae. They are common structures found in about 50% of women, and are usually of no clinical significance. We report a rare case where abdominal pain was caused by torsion of the hydatids of Morgagni that was similar in appearance to acute appendicitis.

METHODS: A 16-year-old virgin visited our hospital with right lower quadrant pain associated with nausea and vomiting. She had no fever and inflammatory markers were normal. She was complaining of acute pain in the region of the appendix with no rebound tenderness. Although transabdominal sonography and a CT scan didn't show swollen appendix, clinical diagnosis was acute appendicitis and her pain wasn't relieved by analgesics, therefore, laproscopy was performed by a surgeon.

RESULTS: The appendix appeared normal and the surgeon noticed an abnormal structure on her right fallopian tube. A gynecologist was called during the operation and found 2 hydatids of Morgagni entwined around the pedicles. Cystectomy and appendectomy were done. The histology showed congestion and necrosis of the cyst wall but no inflammation of the appendix. Her pain remarkably improved and the postoperative course was uneventful.

CONCLUSIONS: Hydatids of Morgagni rarely cause abdominal pain due to torsion. Having researched this condition, I found only 39 cases reported. In 19 cases it occurred on the right fallopian tube, and 13 of these cases were diagnosed as appendicitis before surgery. It is extremely difficult to notice these cysts by images before operating because of their small size. When the torsion occurs on the right fallopian tube, the symptoms closely resemble acute appendicitis. If the patient is operated on and the appendix is normal, the uterine adnexa should be carefully examined.

KEY WORDS: Hydatids of Morgagni , acute appendicitis , abdominal pain

PP-035

CONGENITAL AND ANOMALIESES

FULL-TERM DELIVERY IN THE HERLYN-WERNER-WUNDERLICH SYNDROME AFTER LAPAROSCOPIC SURGERY

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OBJECTIVE: Borderline ovarian tumors represent 10-15% of all ovarian tumors. This benign malignancy is defined as an ovarian epithelial tumor with a stratification of the epithelial lining lacking of frank stromal invasion; it has a less aggressive behavior than more invasive epithelial ovarian tumors, and the prognosis for those patients with the disease limited to the ovary is excellent. However, the size of borderline ovarian tumors is relatively large, so they are often suspected of being ovarian cancers, having a much direr prognosis. We report three cases of stage I borderline ovarian tumors with massive ascites that, before their operation, were suspected of being advanced ovarian cancers. Their ascites disappeared rapidly after resection of the mass and, strikingly, they lacked pleural effusion.

METHODS: We report the case from medical record retrospectively, and review of the literature concerning association between infertility and Herlyn-Werner-Syndrome.

RESULTS: She felt a fullness (distension) of their abdomen before consulting a gynecologist. They were diagnosed with a pelvic tumor by CT scan and were sent to our hospital for medical treatment. The maximum diameter of their pelvic tumors was 11, 20, and 11 cm, respectively, and each was accompanied by massive ascites. After resection of the mass, and without adjuvant chemotherapy, the ascites disappeared rapidly in all three cases. They were diagnosed with a pelvic tumor by CT scan and were sent to our hospital for medical treatment. The maximum diameter of their pelvic tumors was 11, 20, and 11 cm, respectively, and each was accompanied by massive ascites. Post-operatively, a pathological examination determined that all three cases were stage I borderline ovarian tumors. Two were mucinous tumors and one was serous. The amount of the ascites present was 6,300, 2,600 and 3,600 ml, respectively, and was serous in all three cases.

CONCLUSIONS: We have encountered the cases of Herlyn-Werner-Syndrome.

KEY WORDS: Herlyn-Werner-Wunderlich syndrome , infertility , endometriosis

PP-036

CONGENITAL AND ANOMALIESES

ECTOPIC PREGNANCY IN THE FALLOPIAN TUBE OF A NON-COMMUNICATING RUDIMENTARY UTERINE HORN

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OBJECTIVE: Ectopic pregnancy in a non-communicating rudimentary uterine horn is very rare.

METHODS: We describe a case of ectopic pregnancy in the fallopian tube of a non-communicating
uterine horn. Laparoscopic salpingectomy was carried out to remove ectopic gestational tissue.

RESULTS: The patient had been treated successfully by laparoscopic salpingectomy.

CONCLUSION: Laparoscopy is useful in the diagnosis of the rudimentary uterus and for the treatment of ectopic pregnancy in the fallopian tube of the non-communicating rudimentary horn.

KEY WORDS: Ectopic pregnancy, rudimentary uterine horn

PP-037

REPRODUCTIVE ISSUES

IMPACT OF ENDOMETRIOSIS TO PREGNANCY OUTCOME OF ART

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OBJECTIVE: ART (assisted reproductive technology) has been increasingly popular in our modern society. Rise in both numbers of endometriosis patient and ART-related pregnancy was reportedly attributable to advanced age in marriage as well as of hope for child in consequence. However, it is not clearly elucidated the impact of endometriosis to pregnancy outcome of ART. This study aims to identify the pregnancy outcomes of the patients with endometriosis conceived by ART.

METHODS: We reviewed the medical records of the patients who underwent IVF-ET treatment at Tokai University Hospital from January 2010 to December 2014 (N=826; cycle). According to the research protocol approved by IRB, 101 pregnancies were retrospectively recruited. 23 were affected with endometriosis (Em+ group), and 78 had no clinical signs of endometriosis (Em- group). Two groups were analyzed their background, and several aspects of pregnancy course with perinatal outcomes.

RESULTS: There were no significant differences in mean age, history of miscarriage between the two groups. The plasma level of Anti-Mullerian Hormone (AMH) showed a significant difference (Em+ group : 2.20±1.46ng/ml vs Em- group : 3.76±2.05ng/ml). The rate of miscarriage showed a significant difference (Em+ group : 52% vs Em- group : 25%). Perinatal outcomes (premature delivery, caesarean section, gestational age at delivery, birth weight, Apgar score, umbilical arterial blood pH, NICU admission) were not significantly different between the groups.

CONCLUSIONS: In the patients who underwent IVF-ET treatment, endometriosis may increase the rate of miscarriage. Regarding other aspects of pregnancy outcome, the impact of endometriosis should be clarified in large prospective study.

KEY WORDS: endometriosis , pregnancy outcome , ART

PP-038

REPRODUCTIVE ISSUES

EVALUATION OF FACTORS PREDICTING DIMINISHED OVARIAN RESERVE BEFORE AND AFTER LAPAROSCOPIC CYSTECTOMY FOR OVARIAN ENDOMETRIOMAS

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OBJECTIVE: Ovarian endometriomas affect a substantial proportion of women of reproductive age who may have a potential risk of diminished ovarian reserve (DOR) after ovarian cystectomy. Here, we investigated the risk factors for pre-surgical DOR in patients with ovarian endometriomas and for DOR after laparoscopic ovarian cystectomy for endometriomas and evaluated the feasibility of the pre-surgical prediction of post-surgical DOR based on the Bologna criteria.

METHODS: A total of 143 patients with ovarian endometriomas who underwent laparoscopic cystectomy from January 2009 to May 2015 at our hospital were prospectively enrolled and evaluated. Serum anti-Müllerian hormone (AMH) concentrations were measured pre-surgically and at 3 and 6 months after surgery. In accordance with the Bologna criteria, the patients whose AMH concentrations were <1.1 ng/mL before surgery and 3 or 6 months after surgery were classified into pre- and post-surgical adverse DOR (aDOR) groups, respectively.

RESULTS: Thirty-one (21.7%) of 143 patients were classified as pre-surgical aDOR. Patient age and serum follicle-stimulating hormone level were significantly positively correlated with pre-surgical aDOR [odds ratios (ORs), 1.26 and 1.16; $p < 0.001$ and $p = 0.003$, respectively]. Among the remaining 112 patients, 38 patients (33.9%) had post-surgical aDOR 3 and 6 months after surgery. Bilateral cystectomy was positively correlated with post-surgical aDOR (at 3 months: OR, 4.7; $p = 0.001$; at 6 months: OR, 3.71; $p = 0.006$); conversely, pre-surgical serum AMH concentrations were negatively correlated with post-surgical aDOR (at 3 months: OR, 0.65; $p = 0.005$; at 6 months: OR, 0.43; $p < 0.001$). The optimal cut-off point of pre-surgical AMH concentrations for predicting aDOR at 3 and 6 months in the patients undergoing unilateral cystectomy was 2.1 ng/mL. In contrast, the optimal cut-off points at 3 and 6 months in the patients undergoing bilateral cystectomy were 3.0 and 3.5 ng/mL, respectively.

CONCLUSIONS: Our data suggest that the pre-surgical serum AMH concentrations and bilateral cystectomy are significant factors for the risk of aDOR following surgery and that predicting post-surgical aDOR according to the Bologna criteria could be feasible using pre-operative measurements of serum AMH concentrations.

KEY WORDS: anti-Müllerian hormone , endometriosis , laparoscopic cystectomy

PP-039
REPRODUCTIVE ISSUES

AN UNUSUAL CASE OF RAPIDLY GROWING ADENOMYOSIS IN AN IVF PREGNANCY COMPLICATED BY DVT AND MID-TRIMESTER PPROM

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CASE DESCRIPTION: Adenomyosis is a relatively common condition in pregnancy and is not traditionally thought of as a major cause of obstetric complications. We present an unusual case of rapidly worsening adenomyosis following in-vitro fertilization (IVF), complicated by lower extremity deep vein thrombosis (DVT) and mid-trimester preterm premature rupture of membranes (PPROM). The patient presented at 5 weeks 2 days gestation with left lower limb pain. Abdominal examination revealed the uterus to be 26 weeks sized, grossly differing from its pre-pregnancy size of 12 weeks. Doppler ultrasound of the lower limbs revealed complete thrombosis of the left leg veins up to the left common iliac veins, with therapeutic dosing of low molecular weight heparin (LMWH) being initiated immediately. Subsequent follow-up at 7 weeks 6 days gestation revealed the uterus to be 34 weeks sized, correlating with MRI pelvis images of an enlarged adenomyotic uterus with total uterine volume of 2462ml. The pregnancy was complicated by recurrent episodes of threatened miscarriage in the first and second trimester. The patient eventually suffered a mid-trimester PPROM at 18 weeks 5 days gestation resulting in severe oligohydramnios and E-coli sepsis, and underwent a mid-trimester termination of pregnancy post-counseling in view of maternal sepsis and pre-viable PPROM with poor fetal prognosis. This case illustrates the possible occurrence of rapidly worsening adenomyosis as a result of IVF treatments and of pregnancy, which in turn potentially increases the existing inherent risks associated with pregnancy and assisted reproductive technologies such as DVT and pregnancy loss.

KEY WORDS: adenomyosis, in-vitro fertilization, thrombosis

PP-041
REPRODUCTIVE ISSUES

LAPAROSCOPIC MANAGEMENT OF UTERINE DEFECTS ON PREVIOUS UTERINE SURGERY

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OBJECTIVE: Several complications due to inappropriately healed uterine scar such as placenta accreta, scar dehiscence, and ectopic scar pregnancy are increasingly reported along with rising laparoscopic myomectomy. Furthermore, many gynecologic conditions, including abnormal uterine bleeding, pelvic pain and infertility, are imputed to deficient cesarean scar healing. We describe laparoscopic repair of uterine scar defects after uterine surgery and pregnancy outcomes in a series of 2 patients.

METHODS: Prospective study, with a review of the patient records.

RESULTS: -Case1- A 38-year-old patient, G1P1. She had a history of previous cesarean delivery and laparoscopic myomectomy. Thickness of the myometrium over the defect was 3 mm. Hysteroscopy assisted Laparoscopic repair of the uterine defect was performed. One year later, she had twin pregnancy.She was diagnosed with threatened preterm labor and was transported to another hospital. -Case2- A 37-year-old patient, G1P1.She had a history of previous uterine surgery. She had diagnosed uterine defect another hospital. Hysteroscopy assisted Laparoscopic repair of the uterine defect was performed and she had pregnancy and term deliverly.

CONCLUSIONS: Laparoscopic repair with hysteroscopic assist, although not standardized, is a minimally invasive procedure that can be performed to treat uterine scar defects.

KEY WORDS: Laparoscopic repair , uterine scar defects , laparoscopic myomectomy

PP-042
PREGNANCY RELATED

LAPAROSCOPIC REPAIR OF CESAREAN SECTION SCAR DIVERTICULUM AND THE SURGICAL OUTCOME IN 146 PATIENTS

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OBJECTIVE: Total laparoscopic repair was reported in some patients. However, the reported sample sizes (only 3 and 13 cases) and follow-up of the previous studies were insufficient to draw solid conclusions. Herein we described laparoscopic repair of cesarean scar diverticulum (CSD) in a series of 146 patients in our hospital.

METHODS: This is a retrospective study.From April 2010 to July

2015, 146 patients with CSD in the Obstetrics and Gynecology Hospital of Fudan University underwent laparoscopic repair of CSD. The first 45 patients underwent incomplete excision (only excised the top ceiling of the niche), and the rest 101 patients underwent complete excision. The surgical and pregnancy outcome were followed, and the risk factors for successful healing of the repair were analyzed.

RESULTS: The surgery were all successful with no complications and no blood transfusion. The patients were followed-up for an average of 41.18±11.15 (6-69) months. The patients in the incomplete and complete excision group both had an obviously shortened period after surgery (p 60ml) (75% vs. 89.36%, Odds ratio 2.8, 95% CI 0.98-7.93, p=0.040) were correlated with the effects of surgery. Duration of menstruation before surgery, number of previous cesarean section, duration from symptom to operation, experienced (> 10 cases/y) or unexperienced surgeon, complete or incomplete excision of the scar and operating time were not related to the surgical effective rate. Multivariate logistic regression analysis showed that the thickness of the residual myometrium (Odds ratio 2.959, 95% CI 1.023-8.563) and suturing material (Odds ratio 6.204, 95% CI 1.576-24.422) were independent risk factors for successful healing of the repair. Thirty-two patients desired for fertility in this study, and 12 of them got pregnant in 13-32 months after surgery, including 8 term cesarean delivery, 2 preterm cesarean delivery, 1 artificial abortion, 1 cesarean scar pregnancy, and 2 were pregnant when this study was summarized.

CONCLUSIONS: Laparoscopic complete excision and repair of CSD may be performed with fair symptom relief and acceptable postoperative anatomic and functional outcomes.

KEY WORDS: Caesarean section scar diverticulum , Cesarean Section Scar defect , laparoscopic repair

PP-043

PREGNANCY RELATED

CAESAREAN SCAR ECTOPIC PREGNANCIES: A 3-YEAR CASE SERIES IN KK WOMEN'S AND CHILDREN'S HOSPITAL, SINGAPORE

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OBJECTIVE: We aim to describe our 3-year experience in the diagnosis, management, and outcomes of 26 cases of caesarean scar ectopic pregnancies(CSEP) in our tertiary centre.

METHODS: Medical records and ultrasonographic reports of all pregnant women diagnosed with CSEP in our centre over 3 years from June 2013 to June 2016 were retrieved and reviewed. A total of 26 cases were diagnosed with CSEP over this period.

RESULTS: 17(65.4%) presented with per-vaginal bleeding with or without abdominal pain, 4(15.4%) with abdominal cramps and 5(19.2%) without symptoms. Mean maternal age was 33.9 years. 16(61.5%) cases had 1 previous caesarean section(CS) and 10(38.5%) had 2 or more previous CS. Of 26 cases, 10(38.5%) underwent laparoscopic-guided evacuation of uterus, 4(15.4%) hysteroscopic-guided evacuation, 3(11.5%) ultrasound-guided injection of methotrexate(MTX) and 3(11.5%) systemic injection of MTX. There was 1(3.8%) case of laparoscopic resection of ectopic, 1 hysteroscopic-guided evacuation followed by laparotomy and excision of ectopic, and 1 case of systemic injection of MTX followed by laparoscopic-guided evacuation. We also report 1 case of laparoscopic-guided evacuation succeeded by systemic MTX, and 1 ultrasound-guided injection of MTX followed by laparoscopic-guided evacuation leading on to laparoscopic hysterectomy. Lastly, 1 case did not receive treatment after failing to attend follow-up.

CONCLUSIONS: Success of treatment was documented in 20 cases with a negative pregnancy test. 5 were lost to final follow-up but displayed down-trending human chorionic gonadotropin levels. Surgical management or combined systemic and intra-gestational methotrexate were successful in the management of CSEP in our series. Although CSEP is one of the rarest form of ectopic pregnancies, there has been an increasing number of cases diagnosed over the years. This reflects the rising number of caesarean sections being performed for various indications. Hence, it is of the utmost importance to raise awareness amongst clinicians, allowing early detection with appropriate management and follow-up, especially in an early pregnancy unit such as ours.

KEY WORDS: caesarean scar ectopic pregnancy , pregnancy in scar , case series

PP-045

PREGNANCY RELATED

A CASE OF LAPAROSCOPIC MANAGEMENT OF TORSION OF MORPHOLOGICALLY NORMAL ADNEXA IN EARLY PREGNANCY

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OBJECTIVE: To report a case of laparoscopic management of unilateral torsion of morphologically normal adnexa in the first trimester of a spontaneous pregnancy

METHODS: Design: case report and literature review. Setting: Tertiary referral hospital. Patient: 30-year old primiparous lady at 9 weeks 4 days of gestation of a spontaneous pregnancy. She was referred for the complaint of acute onset of right iliac fossa pain with nausea and vomiting. An elevated white cell count was also noted. Transvaginal ultrasound findings were suspicious of right ovarian torsion. Diagnostic laparoscopy was performed with findings of torsion of the right infundibulopelvic and ovarian ligament and an odematous, but otherwise normal right ovary. Intervention: laparoscopic right adnexal detorsion

RESULTS: Preservation of right adnexa and continuation of pregnancy

CONCLUSIONS: Ovarian torsion is a rare event during pregnancy and may be easily missed due to non-specific clinical features. There should be a high clinical suspicion even in patients with no known ovarian pathology. Diagnosis may be significantly aided

by ultrasound assessment. Prompt diagnosis and intervention is important to salvage the adnexa in women who desire to continue the pregnancy and to preserve ovarian function. Laparocopic approach is recommended due to the advantages of a quicker recovery, shorter hospital stay and favourable surgical and pregnancy outcomes.

KEY WORDS: ovarian torsion , pregnancy , laparoscopy

PP-046
PREGNANCY RELATED

LAPAROSCOPIC MANAGEMENT OF BLADDER ECTOPIC PREGNANCY

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OBJECTIVE: Ectopic pregnancy is a potentially life threatening condition and still the majoe cause of maternal mortality in the first trimester of pregnancy. It accounts for approximately 10% of maternal deaths. The involvement of urinary tract is rare, usually occuring after the rupture of an abdominal implanted ectopic embryonic sac.We herein present a case of an ectopic pregnancy implanted in the bladder and successful laparoscopic maangement. To the best of our knowledge this is the first description of abdominal pregnancy on the bladder wall in a natural cycle and successful laparoscopic management.

METHODS: a 28 year old lady presented to our A&E with lower abdominal pain of 12 hours and 7 weeks of gestation. after initial stabilization, a transvaginal scan was performed hich was suggestive of 3.2 x 2.9 x 2.1 cm left adnexal cyst anterior to left ovary but separate from the left ovary, with a 17mm fetal pole of 7 weeks with fetal heart of 172bpm. The patient was counselled for laparoscopic salpingectomy. Intra-operatively there was hemperitoneum of 300 cc and a bladder ectopic was noted below the uterovesical fold at the bladder wall.Both fallopian tubes were normal and there was a corpus luteum in the right ovary. The ectopic gestation was dissected from the bladder wall and the bladder wall was sutured using 2-0 vicryl. Bladder integrity was ensured.

RESULTS: Post-operatively b-hcg was monitored and showed downward trend. The patient recovered completely.

CONCLUSIONS: Ectopic pregnancy in the bladder wall is an extremely rare condition. Some factors such as tubal surgery, previous ectopic pregnancy, altered tubal motility, or prior pelvic inflammatory disease prevent or retard passage of fertilized ovum into the uterine cavity. Abdominal pregnancies tend to occur secondary to an early rupture or abortion of tubal pregnancy into the peritoneal cavity.Laparoscopic management may offer excellent exposure and accessibility for management of unexpected abdominal pregnancy in selected patients.

KEY WORDS: abdominal bladder pregnancy , ectopic pregnancy , laparoscopic maangement

PP-047
PREGNANCY RELATED

LAPAROSCOPIC CERVICOISTHMIC CERCLAGE TO PREVENT PRETERM BIRTH IN SECOND TRIMESTER

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OBJECTIVE: Transabdominal cervicoisthmic cerclage was first described by Benson and Durfee in 1965 as an alternative obstetrical procedure in patients who have either failed two or more previous transvaginal cerclages or in whom a transvaginal cerclage is technically impossible to perform due to extreme shortening, or scarring of the cervix. Scibetta and colleagues first reported the use of laparoscopy cervicoisthmic cerclage since 1998 with the benefit of fast recovery and less postoperative pain [2]. It is a safe and effective alternative to laparotomy for the placement of abdominal cervicoisthmic cerclage and may be used before and during a pregnancy. It is reported to have the complication of massive bleeding, suture migration, infection and preterm labor via transabdominal cervical cerclage procedures. To date there is no randomized controlled trial about the comparison between the laparoscopic approach and open technique, the evidence on the outcomes is still wanted.

METHODS: Under general endotracheal anesthesia, she was placed in the dorsal lithotomy position with Foley catheter insertion and no uterine manipulator used. The laparoscopy was performed through one 11mm umbilical port and three 5mm ancillary ports. One ring forceps covered with the gauze was put into the anterior cervical fornix and lower segment of uterus was compressed with retractor to reveal bladder reflection. The vesicouterine peritoneum was dissected and pushed the bladder downward gradually to prevent the injury to ureter, exposing the bilateral uterine vessels anteriorly. windows in the broad ligament medial to the uterine vessels at the level of the internal cervical os bilaterally were created, the posterior lip of broad ligament was push downward during the procedure to make sure that the ureter will go away from the cervicoisthmic region. The 5-mm Mersilene tape without needles was pulled through the windows and surrounded the cervix.

RESULTS: During her prenatal follow-up visit, there was no vaginal bleeding, vaginal watery discharge nor preterm uterine contraction. Scheduled Cesarean sections performed at 38th week of gestation and found filmy scar tissue covering the cerclage knot. The Mersilene tape was left in situ after surgery

CONCLUSIONS: We present a pregnant case with a history of microinvasive cervical cancer who received knife conization complicated with an extremely short cervix and failed transvaginal cervical cerclage. She had a successful pregnancy after laparoscopic cervicoisthmic cerclage. This procedure is a minimally invasive, extremely safe and effective procedure in properly selected patients. The benefit of laparoscopic cervicoisthmic cerclages were confirmed from literature review. We believed that this is the first case who received laparoscopic cervicoisthmic cerclage during second trimester in Taiwan.

KEY WORDS: Laparoscopy cerclage, , cervical incompetence , cervical cancer

PP-048
PREGNANCY RELATED

EARLY DIAGNOSIS AND SUCCESSFUL MANAGEMENT OF INTRAMURAL ECTOPIC PREGNANCY

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OBJECTIVE: We report a rare case of intramural ectopic pregnancy in a 30-year-old women at 6 weeks gestation. Intramural pregnancy is a rare type of ectopic pregnancy.The fetus implanted within the myometrium, without connection to the fallopian tubes or the endometrial cavity.As for this case sonography and magnetic resonance imaging(MRI) images showed a mixed mass in the posterior fundal uterine wall close to left cornua. Comprehensive treatment were performed, we undergone uterine artery embolization(UAE) successfully before the operation,and then managed with hysteroscopy and laparoscopy. To our knowledge, this is the first case to remove intramural pregnancy tissue in surgical hysteroscopy completely with almost no bleeding, and then repair the defect uterine wall in laparoscocy , provided a new way for the surgical treatment of intramural ectopic pregnancy.

METHODS: We present a interesting case of successful management of an intramural ectopic pregnancy and perform a review of the literature on this form of ectopic pregnancy. Published studies in the English language between 2000 and 2016 on intramural ectopic pregnancy were identified by PubMed search using the Keywords: intramural ectopic pregnancy. We found 38 published cases of intramural ectopic pregnancies.

RESULTS: The patient had strong desire of future fertility,the intramural mass was big, so 2 days later after uterine artery embolization(UAE),the hysteroscopy combined with laparoscopy operation was done to remove the pregnancy tissue. Under ultrasound monitoring the fundal uterine endometrium and myometrium were cut with a ring electrode until the villi were exposed,the pregnancy tissue was resected completely with almost no bleeding.But the left posterior uterine wall was very thin,so a laparoscopic suture was performed to repair the defect uterine wall.The patient's clinical course was uneventful, and was discharged on the 7th day.

CONCLUSIONS: intramural pregnancy occurs rarely,even the most experienced sonographers may only see a handful during their lifetime. Although rare, early diagnosis is possible,which prevent potential life-threatening hemorrhage and allow fertility preservation. Management depends on the time that it is first diagnosed and the clinician's judgement, clinicians shoule be aware of the risk factors for such pregnancy. Our experience with hysteroscopic and laparoscopic management of intramural pregnancy revealed that this minimally invasive procedure is safe and effective.

KEY WORDS: Intramural ectopic pregnancy , Hysteroscopy , Laproscopy

PP-049
PREGNANCY RELATED

SUCCESSFUL LAPAROSCOPIC AND HYSTEROSCOPIC DIAGNOSIS AND MANAGEMENT OF RARE INTRA-MURAL ECTOPIC PREGNANCY IN A PATIENT WITH PREVIOUS MYOMECTOMY

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OBJECTIVE: Intra-mural pregnancy is a rare form of ectopic pregnancy, and little is known about its etiology, prevalence and natural history. There is no consensus regarding diagnostic criteria of intra-mural pregnancy, and management strategies vary depending on the severity of clinical presentation, exact location of the pregnancy, and gestational age at diagnosis.

METHODS: We report a pregnant woman with previous myomectomy, who presented with abdominal pain and vaginal bleeding. Gynecologic ultrasonography and pelvic MRI excluded the possibility of extra-uterine or cornual pregnancy but showed a heterogenous mass within the myometrium, which was not connected to the endometrium. Emergency laparoscopic and hysteroscopic surgery was arranged.

RESULTS: Laparoscopic and hysteroscopic examination confirmed the diagnosis of rare intra-mural ectopic pregnancy. Under concurrent laparoscope and hysteroscope, the gestation was implanted at the site of previous hysterotomy for performing a myomectomy, and there was no connection between the gestation and endometrium. Successful management was achieved with laparoscopic removal of the intra-mural ectopic pregnancy and repair of the uterus. The patient recovered well after the surgery.

CONCLUSIONS: Laparoscopic and hysteroscopic diagnosis and management are feasible and helpful, and can be considered for women with suspected intra-mural ectopic pregnancy.

KEY WORDS: laparoscopy , hysteropcopy , intra-mural ectopic pregnancy

PP-050
PREGNANCY RELATED

OPEN PORT PLACEMENT LAPAROSCOPIC TECHNIQUE IN OVARIAN MASSES IN PREGNANCY

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OBJECTIVE: To demonstrate the safety and advantages of open port placement laparoscopic technique for persistent large symptomatic ovarian masses in pregnancy

METHODS: A report of two cases of ovarian masses with pregnancy between June 2015 and April 2016 operated in a tertiary hospital are included. Pelvic ultrasound and CA 125 tumor marker were taken before laparoscopy. Progesterone 200 mg was given vaginally pre- and post-operatively. A 15 mm Hg CO2 pneumoperitoneum was created using open port placement of first laparoscopic trocar technique. The procedure utilized a 10 mm blunt trocar for primary mid-umbilical or supra-umbilical port for the laparoscope, 5 mm lateral ports along the Langer's line and a high lateral port ipsilateral to the right minor port placed lateral to the midline. Laparoscopic cystectomy was done in their second trimester of pregnancy under general anesthsia with frozen section. Both were nulliparous and 27-28 years of age.

RESULTS: The indications for intervention were pelvic pain and persistent large adnexal masses. The sonographic and histopathologic findings showed benign features of dermoid cyst. The CA 125 tumor marker was 125.37 IU/L with sonographic finding of color flow around the complex cystic mass. The range gestational age was 14-16 weeks. The size of the cysts ranged 8-12 cm. Laparoscopic bilateral cystectomy was done on one case. No complications were encountered intra- and post-operatively. Operative time was 90-155 minutes. The average hospital stay was 2-3 days post-operative. The outcome of pregnancy was normal.

CONCLUSIONS: Laparoscopic surgery for ovarian new growths using the open port placement technique is safe and effective in pregnancy with good feto-maternal outcome. Additional research on a large number of cases is needed to support this conclusion.

KEY WORDS: laparoscopy , ovarian masses , pregnancy

PP-051
PREGNANCY RELATED

SINGLE-PORT LAPAROSCOPY FOR THE MANAGEMENT OF EXTREMELY LARGE OVARIAN CYSTS DURING PREGNANCY

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Objective: To present a safe and effective strategy for the management of extremely large ovarian cysts during pregnancy using single-port laparoscopy

Methods: Patients in pregnancy with adnexal cystic tumor extending up to or beyond the umbilical level and with impression of benign characters were managed with the following surgical strategy, including, 1) to make a 2-cm ultraminilaparotomy incision transumbilically which was under direct inspection and then protected with wound retractor; 2) in the ultraminilaparotomy mode, to aspirate the cystic content through a purse-string-suture protection on the tumor to avoid spillage; and 3) to start up the single-port laparoscopy after establishing pneumoperitoneum to explore the entire peritoneal cavity and perform cystectomy. The contained specimen was finally removed through the protected umbilical wound.

RESULTS: Two patients with unilateral adnexal cystic tumor, measuring 13 and 28cm in diameter, respectively, were found at first trimester and underwent the single-port laparoscopic enucleation at early second trimester, with drainage of 800ml and 7400ml clear fluid content, respectively. The pathology report came out with corpus luteal cyst in the former and paratubal cyst in the latter. Both patients were discharged on the postoperative day 3 uneventfully, and delivered at term smoothly with healthy babies.

Conclusions: Combining transumbilical ultraminilaparotomy and single-port laparoscopy in the management of the extremely large adnexal cysts during pregnancy not only offers the benefit of extracorporeal tumor decompression, but also improves the safety of laparoscopy by avoiding inadvertent uterine injuries from trocar placement, preventing intra-abdominal tumor spillage during manipulation, and providing adequate operation field for the laparoscopy.

KEY WORDS: adnexal cysts, pregnancy, single-port laparoscopy, ultraminilaparotomy

PP-052
PREGNANCY RELATED

COMPLETE REGRESSION OF CORNUAL BULGE AFTER LAPAROSCOPIC GUIDED HYSTEROSCOPIC EXTRACTION OF INTERSTITIAL PREGNANCY

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OBJECTIVE: We present a case of cornual pregnancy treated with laparoscopic guided hysteroscopic extraction.

METHODS: After confirmation of cornual pregnancy with transvaginal ultrasonography and beta-HCG, patient underwent hysteroscopic extraction of gestational tissue under laparoscopic guidance.

RESULTS: Laparoscopy confirmed no uterine perforation, and complete regression of right cornual mass. Patient's beta-HCG 10 days later was 525 mIU/ml.

CONCLUSION: Conservative surgical management requires a hemodynamically stable patient. The pregnancy must be situated in the proximal interstitium with a dilated proximal tubal ostium aiding in vaginal accessibility. As visualized in our photos, this technique provides visualization of complete extraction without perforation.

KEYWORDS: Cornual pregnancy, Hysteroscopy, Laparoscopy, conservative surgery

PP-053

PREGNANCY RELATED

SUCCESSFUL LAPAROSCOPIC MANAGEMENT OF SECOND TRIMESTER RUPTURED HETEROTOPIC CORNUAL PREGNANCY WITH SUBSEQUENT LIVE BIRTH DELIVERY

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OBJECTIVE: To describe the feasibility of managing large (second trimester) heterotopic corneal pregnancy with laparoscopic cornual wedge resection.

METHODS: Patient: A women receiving assisted reproductive technology (ART), pregnancy at 13 1/7 weeks gestation with ruptured heterotopic cornual pregnancy with initial impression of intrauterine twin pregnancy with hemoperitoneum of unknown origin Intervention: Laparoscopic wedge resection of the cornual pregnancy with primary suture for hemostasis

RESULTS: Delivery a healthy baby via Cesarean section; indication: previous uterine surgery, at 34 1/7 weeks gestation due to preterm premature rupture of membrane. The previous cornual wound healed well.

CONCLUSIONS: Laparoscopic management of heterotopic cornual pregnancy even in second trimester is a feasible, however, skillful technique.

KEY WORDS: Heterotopic pregnancy , Laparoscopic surgery

PP-054

ENDOMETRIOSIS

ROBOTIC-ASSISTED LAPAROSCOPY (DA VINCI SYSTEM) FOR EXTENSIVE COMPLEX RETROPERITONEAL MULTIPLE DEEP INFILTRATING ENDOMETRIOMAS

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OBJECTIVE: Surgical removal of extensive complex deep infiltrating endometriosis (DIE) involving pelvic retroperitoneal space has inherent difficulty in technique. To achieve complete excision of the lesion, robotic-assisted laparoscopy (RAL) is thought to a promising alternative of choice.

METHODS: A 45 y/o woman, G3P2A1, complained of dysmenorrhea for 1 year and low pelvic pain off and on recently. Pelvic examination showed an elastic mass about 6cm on left adnexum. Ultrasound revealed left complex mass 5.6×5.2cm. Serum CA-125 was 97.9 U/mL. Four-port RAL (Si system) with one assistant port were applied with central docking. The ovaries had a normal appearance with minimal endometriosis on the surface. A large ill-defined mass beneath the peritoneum bulged out from the left pelvic side wall was noted. By entering the left pelvic retroperitoneal space through the pelvic rim, a solid mass measuring 6.5x6x5cm was found to be deeply embedded along the ureter and extended to cardinal ligament. En bloc removal of all endometriotic masses with complete hemostasis was done using Maryland bipolar forceps, Mega needle driver and monopolar curved scissors. To avoid injury to the colon, a rectal probe was used to position the rectum and its axis as needed.

RESULTS: The amount of blood loss was 10 ml. The intra-abdominal operation time after docking was 240 minutes. The surgeon felt comfortable to go through the debulking procedure. Low abdominal distension developed after operation and, however, it was mild and resolved 3 days later.

CONCLUSIONS: With advantages of 3-dimentional magnification and visualization, delicate dissection and accurate desiccation and resection, RAL is particularly suited to surgical management of extensive complex retroperitoneal multiple DIE in terms of treatment efficacy for patients and ergonomic benefits for surgeons.

KEY WORDS: Robotic , Deep infiltrating endometrioma , Retroperitoneum

PP-055

ENDOMETRIOSIS

LAPAROSCOPIC APPROACH OF CYSTECTOMY AND ENDOMETRIOSIS EXCISION FOR ENDOMETRIOMA AND PELVIC ENDOMETRIOSIS IN THE UTERINE PRESERVING SURGERIES: PENANG GENERAL HOSPITAL EXPERIENCE

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OBJECTIVE: To share the experience of advanced laparoscopic surgeries in pelvic endometriosis including deep infiltrative endometriosis performed in this centre with the advise from top Australian endometriosis endoscopic surgeon for the progression of surgical steps in Penang General Hospital and understanding the limitation of initial experience as these are all complicated surgeries.

METHODS: Sixteen women in the child bearing age group with sonographic evidence of endometrioma with or without chronic pelvic pain or infertility problem underwent laparoscopic surgery over last 12 months in our centre. Both ureters were identified and retroperitoneum was dissected. Adhesiolysis was done with ultrasonic shear. Endometrioma was released from attachment and drained. Hydro-dissection with vasopressin over cyst wall near hilum region. Bleeding site at hilum was irrigated, bleeder

identified and accurate application bipolar energy and irrigation to cool down residual ovarian tissue. If presence of rectovaginal endometriosis, ovaries and fundus of uterus were suspended then rectal probes/assistant's finger were introduced. Dissection into rectovaginal pouch with insertion of finger or probe from the vaginal assistant to facilitate excision of endometriotic tissue and rectum integrity was checked with gas underwater test.

RESULTS: Nine patients had chronic pelvic pain, twelve had infertility problem and six cases were recurrent endometriosis. The average duration of surgery was 140 minutes (50, 235) and average blood loss was 200mls (50,940). One patient in recurrence group was converted to laparotomy due to very dense adhesion in obliterated pouch of Douglas from recurrent endometriosis. No visceral injury was reported. No disc or segmental resection of rectum was performed. 1 out of 7 patients who underwent intrauterine insemination has been pregnant up to the date of data publication.

CONCLUSIONS: Laparoscopic endometriosis surgery is the state of the art surgery where extraovarian pelvic endometriosis pathology adds to the difficulties of the surgery and should only be attempted by experienced endoscopic surgeon in a single attempt. For endometrioma surgery, balance needs to be struck between complete excisions of cyst wall to prevent recurrence versus ovarian reserve in infertility. Where to stop excision in retroperitoneal lesions remain the most difficult problem encountered during the operation, excising too much runs the risk of unnecessary complications and insufficient excision runs the risk of recurrence. Multidiscipline involvement of surgeons is vital to facilitate complete excision while minimize complication.

KEY WORDS: endometriosis , uterine perserving surgery

PP-056

ENDOMETRIOSIS

TRANSVAGINAL ASPIRATION AND ETHANOL SCLEROTHERAPY (TVUAE) IN CYSTIC RECURRENCE OF PREVIOUS ENDOMETRIOSIS SURGERIES A 5-YEAR FOLLOW UP

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OBJECTIVE: To evaluate the long term efficacy of cyst aspiration and ethanol sclerotherpy in cases of cystic recurrence after previous endometriosis surgeries.

METHODS: A hundred eighty-three women with recurrent adnexal cysts underwent 277 transvaginal aspiration and ethanol sclerotherapy between July 2001 and July 2005. All patients had history of previous endometriosis surgeries and suffered from recurrent cystic lesions. All cysts were pre-evaluated to exclude dermoid cysts, multi-septate clear cysts, cysts with papillary protrusions or solid components which considered with malignancy potency. Transvaginal ultrasound guided aspiration performed with normal saline irrigation followed by 95% ethanol instillation for 3 to 5 minutes then remove (irrigation group) or retained with 3 to 5 ml ethanol solution in situ. All patients were followed at 3 months, 6 months, 12 months, then annually till 5th months or further if possible.

RESULTS: Cyst size reduced to a maximal range at 12th month (36.5%). The size change became sluggish till the end of 5th year (52.0%). Ninety-two cases (33.2%) received re-aspiration therapy at an average of 21.7±16.1 months; while 50 cases (18.1%) received major abdominal surgeries at an average of 20.6±17.9 months. Ninteen over 133 infertile patients (17.5%) achieved spontaneous or assisted pregnancy at an average of 10.0±11.3 months. At the end of 5 years, 47 patients over 110 patients who were free of repeat surgical interventions had persistent cystic lesion sized 3.0cm or more (38.2%). The final success rate was 32.9%. Retention group obtained the less re-aspiration rates and longer re-operation period than the irrigation group.

CONCLUSIONS: Aspiration with ethanol sclerotherapy is a safe and efficient alternative therapy for cystic recurrent patients.

KEY WORDS: endometrioma , ethanol sclerosis , transvaginal ultrasound

PP-057

ENDOMETRIOSIS

THE USE OF FIBRIN SEALANT (TISSEEL) IN LAPAROSCOPIC EXCISION OF OVARIAN ENDOMETRIOMA

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OBJECTIVE: To evaluate the use of Tisseel, a 2-component fibrin sealant agent for the control of minor bleeding and repair of the ovarian defect at the end of laparoscopic cystectomy (LC) of endometriomas.

METHODS: From January 2011 to December 2015, an observational study of all patients who underwent LC of endometrioma using Tisseel (group A) was performed. The demographic and operative data, including age, body mass index, operative indications, operative time, estimated blood loss, complications, and postoperative hospital stay duration were recorded. A contemporary cohort of patients, who underwent LC of endometrioma without Tisseel (group B) was also retrospectively compared.

RESULTS: A total of 274 patients were recruited in this study (53 LCs with Tisseel and 221 LCs without Tisseel, respectively). Complete hemostasis was achieved in all patients. The mean size of main mass was significantly larger in the group A than in the group B (7.8 ± 2.4 cm vs 7.0 ± 2.3 cm, P = 0.033) but the mean operating time, operative blood loss, febrile morbidity, and length of hospitalization were not significantly different between the two groups.

CONCLUSIONS: This preliminary series demonstrated the use of Tisseel in LC of endometriomas without any bipolar coagulation and/or suturing of ovarian tissue is clinically safe and feasible.

KEY WORDS: Fibrin sealant; Tisseel, laparoscopy; ovary; endometrioma

PP-058

ENDOMETRIOSIS

ABSCESS FORMATION IN OVARIAN ENDOMETRIOMAS AFTER FAILURE OF MIFEPRISTONE-INDUCED ABORTION

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OBJECTIVE: To report a case of abscess formation in bilateral ovarian endometriomas after failure of mifepristone-induced abortion.

METHODS: Case Report

RESULTS: A-36-year-old multiparous woman with bilateral ovarian endometriomas conceived spontaneously and received mifepristone to induce an abortion at 35 days' gestation. Fever and lower abdominal pain occurred 28 days after the abortion. The patient then underwent surgical curettage for an incomplete abortion complicated by endometritis. Her symptoms and signs became aggravated,and computed tomography showed a large ovarian abscess. She underwent laparoscopic drainage of the abscess plus the enucleation of the ovarian endometriomas, and received intravenous antibiotic treatment. She resumed menstruation one month later and was doing well at the 24-month follow-up.

CONCLUSIONS: This case demonstrates the importance of combining antibiotic therapy with mifepristone to induce abortions in women with known ovarian endometriomas. Prompt laparoscopic drainage of abscess accelerates the clinical recovery and preserves the ovarian function.

KEY WORDS: Endometrioma; Mifepristone; Abortion; Ovarian abscess

PP-059

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

INVESTIGATION OVER ACCUMULATED CASES OF LAPAROSCOPIC HYSTERECTOMY TO UTERI OF OVER 500G

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OBJECTIVE: Procedural difficulty of laparoscopic hysterectomy depends on how the cardinal ligament is processed. Ideal processing of cardinal ligament is considered to be carried out in accordance with an operative theory. However, in cases of excised specimen is more than 500 g, it is difficult to approach accurately to the cardinal ligament, for uterus is huge. There is also a possibility of concomitant complications such as ureter damage or extension of surgery time. We report the result of our investigation over the cases of hysterectomy proceeded by myomectomy for difficulty of ligament process.

METHODS: Normally, after recognizing the location of ureters, we process ovarian ligament, round ligaments on both sides and broad ligament of the uterus to widen the operative field adjacent bilaterally to uterus. In cases with difficulty to approach cardinal ligament after coagulative hemoptysis of ascending branches of uterine arteries with bipolar forceps, we performed excision of uterus after myomectomy with harmonic scalpel or monopolar scalpel in order to make up the state appropriate for approaching cardinal ligament. Among the cases that received total laparoscopic hysterectomy at our hospital from 2010 through 2015, 70cases for large uterus weighing 500g or greater were divided into 47cases without myomectomy (GroupA) and 23cases with preceding myomectomy (GroupB) for retrospective comparison.

RESULTS: No statistically-significant difference was observed in surgery time between GroupA (111.2minutes) and B (121.7minutes). No significant difference was observed in blood loss between GroupA (128.3mL) and B (195.2mL). The mean weight of the uterus removed from GroupB (759.3g) was significantly greater than that from GroupA (642.3g).

CONCLUSIONS: In the operation of total laparoscopic hysterectomy that is difficult to approach accurately for the uterus heavier than 500 g, performing prior myomectomy could make it possible to process cardinal ligament accurately and safely. And it was possible to remove larger uterus in equivalent time with conventional procedure.

KEY WORDS: Leiomyoma , Hysterectomy , Surgical techniques

PP-060

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

WE PRESENT OUR EXPERIENCE IN TWO CASES WITH LAPAROSCOPIC HYSTERECTOMY FOR UTERI WEIGHING 1.2 KILOGRAM OR MORE

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OBJECTIVE: Uterine leiomyomas are the most common benign tumor of the female reproductive tract. The removal of an extremely large uterus is still a challenge to gynecologist regardless of surgical approach and technique used. There are no clear guidelines about large uteri. We present our experience with laparoscopic hysterectomy for uteri weighing 1.2 kilogram or more.

METHODS: Cases 1 is a 47 year-old female without operation history and she has the symptoms of hypermenorrhea, dizziness and pelvic palpable mass. The ultrasound reported several uterine tumors, of which the biggest was 12.5* 10.5*11.5 cm. Case 2 is a 50 year-old women with the operation history of

cesarean section twice. She noted pelvic palpable mass; then CT reported large uterine tumor 16*11*15 cm. Both of them offered laparoscopic removal of uteri. During operation, we coagulated the uterine arteries from opening uterovesical fold of the peritoneum and pushing the ureter laterally. After that, enucleating the myomas and then coagulating the round, ovarian and broad ligaments were performed. The morcellator was used for removing myoma in Case 2.The residual parts of the uteri were morcellated transvaginally after colpotomy. Suturing the vaginal cuff was accomplished trsnsvaginally. At the end of cuff closing, laparoscopy is used for enduring hemostasis.

RESULTS: There was no major intraoperative complication. The operation lasted for 280, 300minutes and the total intraoperative blood loss was both 200 c.c. The weights of removed uteri were 1330 and 1950 gm.and postoperative course was unremarkable.

CONCLUSIONS: Although the use of a laparoscopic approach to manage large myomas is controversial and technically demanding, laparoscopic hysterectomies represent a possibility even in cases of uteri weighing > 1.2 kilogram in our experience. With high endoscopic experience and the assistance of the morcellators, complication rates seem acceptable.

KEY WORDS: laparoscopic hysterectomy , uteri weight

PP-061

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

FROM THE TOP AND FROM THE BOTTOM- DIFFERENT LAPAROSCOPIC APPROACH FOR LARGE-UTERUS HYSTERECTOMY

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OBJECTIVE: Managing large uterus during hysterectomy in laparoscopic surgery can be challenging. Herein, we described two cases whose uterus weighted more than 1000mg, and were managed by traditional laparoscopic assisted vaginal hysterectomy (LAVH) and transvaginal natural orifice transluminal endoscopic surgery (NOTES), respectively.

METHODS: The first case is a 47-year-old woman, who visited our hospital due to menorrhagia and anemia. The uterus enlarged as 18 weeks gestation. Ultrasound showed large uterus with multiple myoma, largest 9.2cm. After counseling, she received traditional 4-port LAVH and adhesiolysis of omentum (which adhere extensively to the anterior abdominal wall). The operation time was 219 minutes, the blood loss was 300ml and the specimen weighted 1200gm. The second case was also a 47-year-old woman, who reported menorrhagia and anemia for several months. The uterus enlarged as 24 weeks gestation, with the fundus 4cm above the umbilicus. Ultrasound showed multiple myomas, largest 10.8cm in size. She received preoperative Ulipristal for 3 months. Transvaginal NOTES hysterectomy and bilateral salpingectomy were performed smoothly. The operation time was 180 minutes; the blood loss was 900ml, and the specimen weight 1110gm.

RESULTS: We find it safe and feasible to deal with large uterus using both traditional LAVH and transvaginal NOTES hysterectomy. Multi-port LAVH and TLH were well established ways in managing large uterus. Previous study had reported extremely large uterus, weighing 3030gm successfully managed by TLH. The author emphasized on higher placement of camera port and the pivotal role of the uterine manipulator. Su et al. first documented Transvaginal NOTES hysterectomy in a study of 16 cases in 2012. The average uterine weight was 538.8±102.9gm, with the largest 1630gm. The author reported the advantage on large uterus for ligate the uterine vessels from the vagina, which is more difficult if approach from the abdomen. We also found that when performing transvaginal NOTES hysterectomy, after ligating the cervix to the level of the isthmus, the uterus is usually more movable, thus creating more space when doing the upper portion of hysterectomy .

CONCLUSIONS: We find it safe and feasible to deal with large-uterus-hysterectomy using both traditional multi-port LAVH and transvaginal NOTES hysterectomy.

KEY WORDS: Hysterectomy , Large uterus , Transvaginal NOTES

PP-062

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

UTERINE HEMISECTION WITH ENUCLEATION OF LARGE INTRAMURAL MYOMA IN LAPAROSCOPICALLY ASSISTED VAGINAL HYSTERECTOMY

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OBJECTIVE: To demonstrate the safety and effectiveness of uterine hemisection with myoma enucleation of a large fibroid after laparoscopically assisted vaginal hysterectomy

METHODS: A case of a 49 years old multigravid with a symptomatic uterine fibroid with no desire for uterine preservation was operated in a tertiary hospital on May 28, 2016. Laparoscopically assisted vaginal hysterectomy with bilateral salpingectomy was done with a 14 cm fibroid uterus. A 15 mm Hg CO2 pneumoperitoneum was created using open port placement technique. The procedure utilized a 10 mm blunt trocar for primary mid-umbilical port, 5 mm lateral ports and a high lateral 12 mm port for myoma corkscrew ipsilateral to the right 5 mm port. After the uterine arteries secured and paracervical ligaments divided, the uterus was removed vaginally under direct vision by lower uterine hemisection and myoma enucleation. Long handled stout scissors with broad flat base and long broad angular scalpel handle were used in cutting through the myometrium and enucleation of myoma.

RESULTS: The parauterine ligaments were accessed with traction and countertraction using a myoma corkscrew on a 12 mm port. Hemisection starting from the cervix and enucleation of the myoma along the incision expedited delivery of the enlarged uterus vaginally. The specimen weighed 425 grams and measured 15x11x7.5 cm with a large 9 cm intramural myoma. No complications were encountered intra- and post-operatively. Operative time was 90-155 minutes. The average hospital stay was 2 days.

CONCLUSIONS: Laparoscopically assisted vaginal delivery is

an alternative evolving treatment of myoma. For an enlarged uterine fibroid, hemisection and myoma enucleaton with proper instrumentation is safe and effective. Additional research on a large number of cases is further needed.

KEY WORDS: laparoscopy , myoma enucleation , uterine hemisection

PP-064

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

THE TREATMENT OF GnRH AGONIST BEFORE TLH CAN DECREASE THE POSTOPERATIVE COMPLICATIONS

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OBJECTIVE: To evaluate the effect of preoperative GnRH agonist in benign uterine diseases' patients.

METHODS: This study is the retrospective, a single-center trial; Kaizuka City Hospital in Osaka, Japan. We followed up the postoperative patients of benign uterine diseases for one month after their operations. We included the patients who had laparoscopic hysterectomy (TLH or LAVH, and any additional operations; salpingestomy, salpingo-oophorectomy or colporrhaphy) from in April 2013 to May 2016 and continued to see a doctor for more than one month after their operations. 192 patients were eligible for this analysis. We divided patients into two groups; Group1 comprised the patients with preoperative GnRH agonist, and Group2 comprised the patients without preoperative GnRH agonist. The primary outcome measures included operation time and blood loss. Secondary outcome measure was postoperative complications. Additionally we check their age, BMI, baseline diseases, having past operations or endometriosis, excised specimen weight, having adhesiotomy or not, intraoperative complications.

RESULTS: There weren't significant difference in backgrounds between two groups excepted for that Group2 patients were elder (average age; 44.05 vs 49.49) and had more baseline diseases(p=0.0747). The median operation time in Group1 was 156.33 (95%CI:146.99-165.66) minutes and in Group2 was 175.80 (165.87-185.71) minutes respectively(p=0.0113). The median blood loss in Group1 was 133.34 (82.29-184.39) ml and in Group2 was 177.85 (130.93-224.78) ml respectively(p=0.0079). 12 cases(15.8%) had postoperative complications in Group1 and 31 cases(26.7%) in Group2(p=0.038).

CONCLUSIONS: It is suggested that "the treatment of GnRH agonist before TLH can decrease operation time, blood loss, and postoperative complications in benign uterine diseases.

KEY WORDS: TLH , GnRH agonist , postoperative complications

PP-065

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

TWO CASES OF CONVERSION TO OPEN LAPAROTOMY IN LAPAROSCOPIC SURGERY FOR TUBO-OVARIAN ABSCESSES

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OBJECTIVE: In recent years laparoscopic surgery is actively introduced into tubo-ovarian abscesses (TOA) because of minimal invasive. But cases of TOA often have severe inflammations. In this case, it is difficult to complete laparoscopic surgery.

METHODS: We experienced two cases which we had to convert to open surgery. So we report them.

RESULTS: Case1: A 56-year-old woman was diagnosed as pelvic inflammatory disease (PID) and treated by antibiotics in local hospital. A month later, PID relapsed and she consulted our hospital. The abscess of 60mm in right adnexa was observed by transvaginal ultrasonography and pelvic MRI. The right hydronephrotic kidney was observed by contrast CT. We started laparoscopic surgery. But adhesions of the right TOA and the intestine was so severe that we couldn't separate them at all. So we converted to open surgery. Case2: A 43-year-old woman had an abscess of 60mm in left adnexa. Her historical operation was appendectomy and hysterectomy. We started laparoscopic surgery and tried to approach from navel. But scope entered the omentum. So we placed a trocar above pubis by open approach. We observed the omentum and the intestine were adhered to the wall of the abdomen. So we couldn't place other trocars and we converted to open surgery. we performed fenestration and abscess drainage.

CONCLUSIONS: We should sometimes convert to open surgery in laparoscopic surgery for TOA when adhesions of abdominal are more severe than expected. In that case we have to give an appropriate decision about conversion during surgery. It is also important to contact other subjects such as gastroenterological surgeons and urologists.

KEY WORDS: tubo-ovarian abscess , severe adhesion , conversion

PP-066

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

THE RISK FACTORS OF SURGICAL SITE INFECTION (SSI), IDENTIFIED BY STATISTICAL ANALYSIS FOR PATIENTS UNDERGOING SINGLE-PORT OR MULTI-PORT LAPAROSCOPIC GYNECOLOGICAL SURGERY

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OBJECTIVE: This study aimed to identify the incidence of surgical site infection (SSI) and the risk factors for patients who underwent laparoscopic surgery.

METHODS: A retrospective analysis of database of our hospital was conducted. Patients who diagnosed adnexal tumor or ectopic pregnancy and underwent laparoscopic surgery during April 2015- March 2016 were included in the analysis. SSI was assessed according to the Clavien-Dindo classification. Risk factors examined included amount of bleeding, operative approach (single-port or multi-port), operative procedure (cystectomy or salpingo-oohorectomy or salpingectomy), duration of operation, diabetes mellitus (DM), body mass index (BMI), and age. For each factor, univariate analysis was performed. For the significant factors, multivariate analysis was performed.

RESULTS: A total of 86 laparoscopic surgery was operated during the period. 38 of 86 were single-port laparoscopic surgeries and remaining 48 were multi-port laparoscopic surgeries. of 38 single-port laparoscopic surgery, 1 case was cystectomy, 5 cases were salpingectomy, and 32 cases were salpingo-oohorectomy. Of 48 multi-port laparoscopic surgery, 40 cases were cystectomy, 1 case was salpingectomy, and 7 cases were salpingo-oohorectomy. The total incidence of SSI was 9.2%(8/86). All patients who diagnosed with SSI were operated by single-port laparoscopic surgery. The univariate analysis showed that advanced age, operative approach (single-port) and operative procedure (salpingo-oohorectomy) were significant risk factors ($p<0.05$). However, these three factors were mutually confounding. The multivariate analysis(Logistic regression) indicated that advanced age （ odds ratio,1.06; 95% confidence interval, 1.018-1.10 ） as the most significant risk factor of SSI.

CONCLUSIONS: According to this study, SSI was associated with advanced age. Advanced aged patients often selected salpingo-oohorectomy, and salpingo-oohorectomy was often operated by single-port laparoscopic surgery in our hospital. Actually, these three factors (age, salpingo-oohorectomy, single-port laparoscopic surgery) were significantly correlated with each other and were confounding factors. We have to prevent SSI especially for advanced-age-patients who underwent single port laparoscopic surgery.

KEY WORDS: Surgical site infection , single port laparoscopic surgery , gynecology

PP-067

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

CONTROLLING BLEEDING IN LAPAROSCOPICALLY ASSISTED MYOMECTOMY (LAM)

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OBJECTIVE: Laparoscopic myomectomy (LM) and laparoscopically assisted myomectomy (LAM) are two methods for the laparoscopic removal of uterine myoma. In our clinic, we often select LAM for patients presenting with giant uterine myoma or multiple myomata who have been told by another clinic that laparotomy or hysterectomy is the only option even if their wish is uterine conservation.

METHODS: The problem of myomectomy is the bleeding during the surgery. Particularly in a patient presenting with a giant myoma or multiple myomata, myomectomy may cause excessive bleeding, and thus countermeasures for the bleeding are very important. In our clinic, we use two approaches to control the bleeding: 1) local injection of vasopressin on the myoma surface, and 2) external approach, i.e., making a sufficiently large laparoscopic incision to pull the uterus out of the body after LAM, avascularizing the cervix uteri, removing any remaining myomata, and reconstructing the uterus quickly using a method similar to a laparotomy.

RESULTS: Whereas the vasopressin local injection controls bleeding from the myomectomy incision to a minimum, in the external approach, avascularization controls the bleeding and uterine reconstruction can be performed quickly outside the body, thereby reducing surgery time in comparison to a conventional LAM, and lessening bleeding as a result. In the case of heavy bleeding, we also use diluted or recycled autologous blood transfusion.

CONCLUSIONS: In this paper, we present and discuss our approaches to control bleeding associated with LAM.

KEY WORDS: Controlling Bleeding

PP-068

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

MINIMIZING BLOOD LOSS IN WOMEN WITH HUGE SEVERE ADHESIVE ADENOMYOSIS USING DA VINCI ROBOT

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OBJECTIVE: In cases with huge severe adhesive adenomyosis, adhesiolysis is often difficult and skill-demanding. It is also a tough task to identify and ligate the uterine vessels via traditional laparoscopic approach. We would like to share our experience in performing the aforesaid surgical techniques using the Da Vinci Robot.

METHODS: Women with huge severe adhesive adenomyosis was selected for robotic subtotal hysterectomy. Bilateral uterine arteries were identified through retrograde tracking of the umbilical ligaments, and ligated with hem-o-locs or hemoclips. Dissection of the adhesive plane between uterus and rectosigmoid colon was attempted with care using the robotic instruments, followed by subtotal hysterectomy.

RESULTS: Ten women were recruited in this study, with average

age of 45, mean uterine weight of 800 gm and mean estimated blood loss of 250cc. No major complications such as ureteral injury or bowel injury were noted and none of the case was converted to laparotomy.

CONCLUSIONS: Robotic surgery has the advantages of articulation beyond normal manipulation and three-dimensional magnification that results in improved ergonomics. Endowrist instruments offer a greater range of motion than the human hand, allowing rapid and precise dissection and tissue manipulation.

KEY WORDS: adenomyosis , Da Vinci Robot

PP-069

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

OPTICAL ACCESS TROCAR WITH KOCHER CLAMPS IS EFFECTUAL FOR OBESE WOMEN

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OBJECTIVE: To evaluate the efficacy of optical access trocar with Kocher clamps in obese women.

METHODS: We retrospective analyzed 24 women who underwent gynecological laparoscopic surgery at the Nara Medical University from April 2008 to September 2015 and whose body mass index was over 30 kg/m2. We inserted the first trocars by open access, closed access or optical access. In the course of this period, we modified optical access using Kocher clamps. The first step of optical access is to make an incision from the navel to the transversalis fascia, this was similar to open access. The next step includes pulling up the edge of the transversalis fascia using Kocher clamps. We evaluated the differences between the insertion methods.

RESULTS: There were advantages in using optical access with Kocher clamps. One advantage was the significantly shorter time required to insert the first trocar compared with that required using open access ($p = 0.0094$). The frequency of failure to enter using optical access with Kocher clamps was also significantly lower compared with that of failure using other insertion methods ($p = 0.0251$). In addition, we observed no major organ injuries and required no blood transfusions.

CONCLUSIONS: Optical access trocar with Kocher clamps is a safe and fast technique for insertion of the first trocar during gynecologic laparoscopic surgery in obese women.

KEY WORDS: trocar , obese women , optical access

PP-070

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

LESS MYOMECTOMY IN DIFFERENT TYPES OF MYOMAS

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OBJECTIVE: To retrospectively reviewed outcomes of LESS myomectomy in different types of myoma.

METHODS: We retrospectively reviewed 3 cases whom receive LESS myomectomy with different types of myoma.

RESULTS: All three cases show good result, with no intra- or post-operative complications.

CONCLUSIONS: LESS myomectomy is feasible to different types of myoma.

KEY WORDS: LESS surgery, Myomectomy

PP-071

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

OVERCOMING THE CHALLENGES OF SILS WITH THE NEWLY-DESIGNED SINGLE PORT PLATFORM (KITTI'S PORT)

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OBJECTIVE: Background: The common challenges of Single Incision Laparoscopic Surgery are ,Loss of triangulation ,Collision of instruments,Reduced vision and operating space,Intracorporeal suturing and knot-tying Kitti's port (the newly designed single port platform) was designed to overcome these challenges Its advantages are requiring of only a small (1.5 cm.) intraumbilical incision, Great freedom of movement , Easy removal of resected tissue, Easy introduction of prebent (curved) laparoscopic instrument and needle into peritoneal cavity, 5 and 10 mm.instrument can be used. Objective: To analyze and report the preliminary experience with the newly designed single port platform (Kitti's port) for single incision laparoscopic surgery in gynecologic procedures

METHODS: The medical records of women with gynecologic diseases who underwent single incision laparoscopic surgeries using the newly designed single port platform (Kitti's port) by myself in 5 private general hospitals in Bangkok from November 2015 to May 2016 were reviewed Main outcomes measures operative times, estimated blood loss, intra and post operative complications, duration of hospitalization

RESULTS: Of the 60 single incision laparoscopic surgeries using the newly designed single port platform (Kitti's port) during that period of time, no conversion to multi-port laparoscopic surgery or laparotomy was needed 48 were surgeries for adnexal mass. The mean operative time was 75 minutes (range from 40 to 120 minutes). The mean estimated blood lost was 50 ml. (range from 20 to 120 ml.) 8 were myomectomies The mean operative time was 120 minutes (range from 90 to 180 minutes). The mean estimated blood lost was 250 ml. (range from 150 to 500 ml.) 4 were hysterectomy (LAVH) with bilateral alpingo oophorectomies. The mean operative time was 110 minutes (range from 80 to 200 minutes). The mean estimated blood lost was 120 ml. (range from 80 to 150 ml. No major intraoperative complications occurred in all surgeries. The mean hospital stays was 2 days (range from 1 to 3 days)

CONCLUSIONS: Single incision laparoscopic surgeries using the newly designed single port platform (Kitti's port) is feasible and safe for most gynecologic procedures

KEY WORDS: SILS , Newly -designed single port platform , Kitti's port

PP-072

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

THE SURGICAL AND THE COMPARATIVE SHORT TERM OUTCOMES OF THE TWO-PHASE LAPAROENDOSCOPIC SINGLE SITE CERVICAL LIGAMENT SPARING HYSTERECTOMY

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OBJECTIVE: To present our initial experience and comparative short-term outcomes of the laparoendoscopic single-site cervical ligament-sparing hysterectomy (LESS-CLSH).

METHODS: This case analysis study included fourty five women who underwent LESS-CLSH from January, 2014 to June, 2016 atTzu Chi Medical Centre. The related surgical parameters of the cases were reviewed. The preliminary short-term outcomes of the two years prospective study of CLSH compare with subtotal hysterectomy (LSH) and laparoscopic assisted vaginal hysterectomy (LAVH) (granted by National Science Council) will be reported, including quality of life [WHOQOL- BREF(28)], urinary incontinence (UD-6 & IIQ-7), sexual life (PISQ-9) at preoperation and 3 month post operation.

RESULTS: The average surgical time was 168.9 ± 42.9 min, and most of the time was spent on Phase 1 procedures (152.2 ± 35.1 min), while the Phase 2 procedures were consistently be completed about 20 minutes. The average blood loss was 421.9 ± 328.7 ml. of them, 53.3% were difficult laparoscopic hysterectomies, when excluding these difficult cases, the average surgical time was 139.4 ± 20.9 min and the blood loss was 208 ± 130 ml. Delayed onset vaginal bleeding on the 9th to 13th day postoperation was noted in five women (11%). Asymptomatic fluid accumulation in the endocervical canal was found in four women (8.8%), but no treatment was needed. No residual stump infection or cyclic vaginal bleeding was noted. Three month after surgery, both the diameter and the thickness of the cervix were decreased by approximately one centimetre.

CONCLUSIONS: This study demonstrated that LESS-CLSH is minimal invasive, safe and feasible even for difficult laparoscopic hysterectomy. Whether LESS-CLSH prevents POP and urinary dysfunction, eliminates cervical neoplasia and increases quality of life or sexual gratification, these needed to be confirmed by a large scale clinical study.

KEY WORDS: laparoendoscopic single site , cervical ligament sparing hysterectomy , difficult laparoscopic hysterectomy

PP-073

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

LAPAROSCOPIC REMOVAL OF AN INTRAUTERINE DEVICE FROM THE OMENTUM

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OBJECTIVE: Intrauterine contraceptive device is the most common method of reversible contraception in women. A relatively rare, but serious, complication of IUD insertion is uterine perforation. Physicians can expect to see more cases of perforation as the use of IUDs increase. Patients can present with abdominal pain, pregnancy, vaginal bleeding, recurrent urinary tract infection or even asymptomatic. When the perforated IUD is in the abdomen, laparoscopic removal is standard of care.

METHODS: We present a patient found to have a IUD perforation accidentally.

RESULTS: A 43 year-old female suffered from acute abdomina pain. CT was performed and ovulation bleeding as hemorrhagic cyst was diagnosed. However, IUD migration into abdominal cavity was also found accidentally. Surgeon then performed laparoscopic surgery and IUD migration into omentum was found and was removed smoothly.

CONCLUSIONS: The treatment modality for the removal of a dislocated IUD is possible by laparoscopic surgery in selected patients where the dislocated IUD is accessible

KEY WORDS: Intra-abdominal intrauterine devices , Perforation , Migration

PP-074

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

CLINICAL APPLICATION OF A NOVEL ABDOMINAL WALL SUSPENSION SYSTEM IN GASLESS LAPAROSCOPIC MYOMECTOMY

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OBJECTIVE: To explore the feasibility, and application value of a modified abdominal wall suspension system in gasless laparoscopic hysteromyomectomy.

METHODS: A total of 90 cases of uterine fibroids were randomly divided into 2 groups.An intervention group (n=46) which underwent a modified gasless abdominal-wall lifting laparoscopic hysteromyomectomy ,and the conventional group(n= 44) which underwent a standard conventional gasless abdominal-wall lifting laparoscopic hysteromyomectomy.Primary outcomes measured were operating time duration, blood loss volume, intestinal function recovery time and hospital stay days.

RESULTS: The operative duration, blood loss volume and average time of single-myoma-removal of Improved group were

respectively significantly less than those of traditional group(P 0.05).

CONCLUSIONS: The modified abdominal wall suspension device(hung to the OR ceiling)will increase surgeons'operating for easier movement and less space restriction.The gasless abdominal-wall lifting technique is cosf-effective,simple and has a practical clinical application for surgery.

PP-075

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

MAKE A DIFFICULT SURGERY EASIER: THE USE OF OVARIAN SUSPENSION WITH ADJUSTABLE SUTURES (OSAS) TO FACILITATE LAPAROENDOSCOPIC SINGLE SITE SURGERY (LESS)

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OBJECTIVE: To perform laparoendoscopic single site surgery (LESS) for ovarian tumors is quite difficult for women with poor tumor positions, adhesion (e.g., endometriosis) or slippy tumor surfaces (e.g., teratomas), because of potential problems in access to tumors or fixation of tumors. We describe a method of ovarian suspension with adjustable sutures (OSAS) to facilitate laparoendoscopic single site ovarian surgery (LESS-ovary) and to investigate the effect of OSAS in LESS.

METHODS: This cohort study was conducted in an university teaching hospital, enrolling 203 patients with benign, 5-15 cm cystic ovarian tumors who underwent LESS with OSAS (suspension group, n=109) and without OSAS (control group, n=94). For patients using OSAS (suspension group), one end of double-head straight needles with a polypropylene suture was inserted into the pelvic cavity through the abdominal skin to penetrate the cyst or ovarian parenchyma and puncture outside the abdominal skin. After cutting off the needles, both sides of the remaining suture were held together by a clamp, without knotting, so that the manipulator could "lift," "loosen," or "fix" the stitches to adjust the tension.

RESULTS: The average time to create OSAS was 2.7 minutes. For the suspension and control groups, the average blood loss was 70.4 and 129.8 mL (p<0.001) and the operative time was 35.2 and 60.4 minutes (p<0.001), respectively. There were no significant differences in the incidence of complications (5.5% vs. 9.6%, p=0.289), but significant differences in conversions to standard non-single-site laparoscopy (5.5% vs. 14.9%, p=0.025) and laparotomy (0.9% vs. 6.4%, p=0.012). Logistic regression analysis revealed that the ratios of conversion to standard non-single-site laparoscopy (OR=0.116; 95% CI= 0.111–0.528) and laparotomy (OR=0.031; 95% CI=0.001–0.477) were much lower in the suspension group; the risk of complications was comparable (OR=0.334; 95% CI= 0.081–1.412).

CONCLUSIONS: OSAS is an easy, safe, and feasible method that offers advantages during LESS. Although routine use of OSAS is not necessary, OSAS can be considered during LESS to facilitate ovarian surgeries. (Preliminary results of this study was published in KH Chen, LR Chen, KM Seow. Ovarian suspension with adjustable sutures: An easy and helpful technique for facilitating laparoendoscopic single site gynecologic surgery. Journal of Minimally Invasive Gynecology. 2015;22:767-775.)

KEY WORDS: laparoendoscopic single site surgery (LESS), ovarian suspension with adjustable sutures (OSAS)

PP-076

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

MAKE A DIFFICULT SURGERY EASIER: THE USE OF UTERINE SUSPENSION WITH ADJUSTABLE SUTURES (USAS) TO FACILITATE DIFFICULT LAPAROSCOPIC MYOMECTOMY

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OBJECTIVE: To perform laparoscopic myomectomy (LM) is relatively difficult among virgin patients with unfavorably localized leiomyomas, in whom uterine manipulators cannot be used. We describe trans-abdominal uterine suspension with adjustable sutures (USAS) for facilitating LM, and reviews the effect of USAS.

METHODS: This cohort study was conducted in an university teaching hospital, enrolling 158 virgin patients with posterior deep intra-mural, intra-ligamental, or cervical leiomyomas. According to the date when we started USAS, patients were classified as suspension group (with USAS, n=81) and control group (without USAS, n=77). In patients using USAS, one end of double-head straight needles with a polypropylene suture was inserted into pelvic cavity through abdominal skin to penetrate bilateral broad ligaments or anterior uterus, and finally punctured outside abdominal skin. After cutting off the needles, both sides of the remaining suture were held together by a clamp, without knotting, so that the manipulator could "lift," "loosen," or "fix" stitches to adjust tension.

RESULTS: Average time to create USAS was 2.5 minutes. For the suspension and control groups, average number of abdominal ports was 3 and 4.4 (p<0.001), average blood loss was 96.3 and 201.5 mL (p<0.001), and average operative time was 50.8 and 91.2 minutes (p<0.001), respectively. There was no significant difference in complications (4.9% vs. 9.1%, p=0.303), but a significant difference in conversion-to-laparotomy (1.2% vs. 10.4%, p=0.009). At the 3-year follow-up evaluation, there were no significant differences in gynecologic and reproductive outcomes, including leiomyoma recurrence, uterine rupture, pregnancy and livebirth rates. The ratio of conversion-to-laparotomy (OR=0.108; 95% CI=0.013–0.884) was much lower in suspension group.

CONCLUSIONS: USAS is a helpful method for facilitating LM among virgin patients with unfavorably localized leiomyomas, in whom uterine manipulators cannot be used.

KEY WORDS: uterine leiomyoma , laparoscopic myomectomy , uterine suspension with adjustable sutures (USAS)

PP-077

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

MODIFIED PRESACRAL NEURECTOMY; ALTERNATIVE TECHNIQUE OF SAFER OPERATION

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OBJECTIVE: Traditional laparoscopic presacral neurectomy is performed by dissection of superior hypogastric plexus within interiliac trigone. Its complication included constipation, urinary urgency and the serious complication is massive bleeding especially from injury to middle sacral vessels. Therefore we use the modified technique for presacral neurectomy.

METHODS: Through single port via umbilicus, telescope was used to inspect cephalad to see the aortic area. The aortic bifurcation, common iliac arteries and veins, ureters, and sacral promontory were identified. The peritoneum overlying the aorta was grasped and tented with grasping forceps, and a small opening was made with the Ligasure. The peritoneum was incised horizontally and vertically, and the opening was extended cephalad to the inferior mesenteric artery. Bleeding from the peritoneal vessels was controlled with the bipolar electrocoagulator. Retroperitoneal fatty tissue was removed before the hypogastric plexus was reached. The nerve plexus was grasped with an atraumatic forceps. Using blunt and sharp dissection, the nerve fibers were coagulated, and then excised. The retroperitoneal space was irrigated, and bleeding points were coagulated. Sutures were not required. The excised tissue were sent for histologic confirmation of nerve removal.

RESULTS: In this case, postoperative was uneventful. At the time of 3months follow- up, she had relief dysmenorrhea and pelvic pain. She had no constipation, diarrhea nor urinary problem

CONCLUSIONS: •Laparoscopic PNS is an effective operation for patient with central dysmenorrhea.•Due to dangerous location of superior hypogastric nerve, modified techniques have contributed to inconsistent surgical outcome. •Preaortic approach technique provides good outcome and minimized massive bleeding complication.

KEY WORDS: presacral neurectomy , single port

PP-078

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

SALPINGO-OOPHORECTOMY IN BIG OVARIAN CYST WITH MINIMAL SPILLAGE

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OBJECTIVE: Doing a laparoscopy surgery in big ovarian cyst while preventing spillage of the cyst fluid inside the peritoneum is quite challenging.

METHODS: Using a simple technique by directly puncturing trocar into the cyst and start suction directly to decrease the cyst size, pulling the cyst hole outside to stitch seal it to prevent another spillage and putting the cyst into the bag to retrieve the cyst is a simple and cheap procedure to prevent te spillage.

RESULTS: This procedure can evacuate big ovarian cyst with minimal spillage.

CONCLUSIONS: This procedure is reliable, safe, easy to learn and cheap to prevent spillage.

KEY WORDS: Ovarian Cyst , Spillage , Laparoscopy

PP-079

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

USEFULNESS OF THE URETERAL CATHETERIZATION WHEN PERFORMING THE TOTAL LAPAROSCOPIC HYSTERECTOMY FOR UTERINE CERVICAL LEIOMYOMAS

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OBJECTIVE: Detecting the ureter at the cross point with the uterine artery is the key procedure in avoiding the ureteral injury when performing the total laparoscopic hysterectomy (TLH). Especially in patients with cervical leiomyomas, it could be more difficult to identify the deviated ureter because cervical leiomyomas compress the surrounding tissues, thereby changing normal anatomical positions. This might increase not only the frequency of the ureter or bladder injury, but also the difficulty in surgical technique of TLH for cervical leiomyomas compared with that of TLH for other diseases. We performed the bilateral ureteral catheterization preoperatively under the general anesthesia to make it easy to detect the ureter during laparoscopic surgery for cervical leiomyomas and investigated the usefulness of this technique.

METHODS: We inserted the ureteral catheters preoperatively in 4 cases with uterine cervical leiomyomas who underwent TLH in our hospital. Case 1: 6cm cervical leiomyoma, Operation time: 6 h 25 min, Bleeding: 250g, Weight of the uterus: 313g Case 2: 10 cm/7cm cervical leiomyoma, Operation time: 5 h 52 min, Bleeding: 200g, Weight of the uterus: 1180 g Case 3: 7cm/7cm cervical leiomyomas, Opeartion time: Bleeding: 5 h 40min, Weight of the uterus: 446g Case 4: 11cm cervical leiomyoma, Opertion time: Bleeding: 6 h 23 min, Weight of the uterus: 365g For these patients, the doctor of the urology inserted the 6 Fr-ureteral catheters up to just below the kidney level under general anesthesia. The average time for this procedure was 20 min. The catheters were removed just after operation.

RESULTS: In all of the cases, the ureters in the side of protruding cervical leiomyoma were extremely deviated, and it was more difficult to detect the ureters on the leiomyoma side compared with those in the opposite side. It also took more time to identify them. In every case, the recognition of the solid feelings at touching the ureteral catheter with the forceps was helpful to identify the ureter.

CONCLUSIONS: In the detection of the ureter, the preoperative performance of ureter catheterization compensates for the decrease in the sense of touch accompanied by laparoscopy. Our data demonstrate that this technique is useful for detecting the ureter during surgery because of making it possible to touch the solid ureter with the medical forceps. Our data suggest that the preoperative performance of ureter catheterization is useful for decreasing the risk of the ureteral injury when performing TLH for the uterine cervical leiomyomas.

KEY WORDS: uterine cervical leiomyoma , ureter catheterization , total laparoscopic hysterectomy

PP-080

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

SAFELY AND EASILY TLH IN CERVICAL MYOMA

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OBJECTIVE: To knowledge sharing technique TLH in cervical myoma

METHODS: * The standard surgical steps of operative laparoscopy, pneumoperitoneum, primary port 5mm. in fraumbilicus, second and third port are left site of patient. * Covidian was used for operation * Specimen was removed transvagina * Vaginal stump was closed transvagina by vicryl1/0 absorbable suture continueous two layer

RESULTS: * No immediate and late complication * Excellence result

CONCLUSIONS: Total laparoscopic hysterectomy can be performed safely and easily in cervical myoma.

KEY WORDS: safely and easily , TLH , cervical myoma

PP-081

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

NATURAL ORIFICE TRANSLUMINAL ENDOSCOPIC SURGERY (NOTES) SUBTOTAL HYSTERECTOMY: A FEASIBILITY STUDY

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OBJECTIVE: Hysterectomy via transvaginal natural orifice transluminal endoscopic surgery has been carried out for benign uterine diseases and nonprolapsed uteri recently. Subtotal hysterectomy was performed to remove the uterus with preservation of the cervix by abdominal, laparoscopic, or vaginal operation. This study aims to gain insight into the feasibility and safety of subtotal hysterectomy through transvaginal NOTES.

METHODS: This is the first case series study to describe the technique and to evaluate the feasibility of this innovative surgical procedure. 10 patients were recruited and took NOTES subtotal hysterectomy within one-year duration.

RESULTS: The mean operation time was 130.8 ± 58.5 minutes with a mean blood loss of 465.0 ± 331.7 ml. The mean weight of specimen retrieved was 505.1 ± 442.6 g (range 150 g to 1673 g). None of these patients sustained injury to surrounding structures or major blood vessels during the surgery. Five patients required analgesia during the first 24 hours post-surgery. Post-operative hospital stay ranged from 2 to 3 days. All these patients did not give any significant complaint related to surgery at 1, 3, and 6 months follow-up. All of them have recovered and lived well so far after taking surgery.

CONCLUSIONS: This study confirms the feasibility and safety of NOTES subtotal hysterectomy.

KEY WORDS: Subtotal hysterectomy; Natural orifice transluminal endoscopic surgery (NOTES); Uterus

PP-083

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

NOTES OVARIAN CYSTECTOMY

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OBJECTIVE: Dermoid cysts present the most common germinative ovarian tumor in women of reproductive age. Transvaginal ultrasound and diagnostic laparoscopy have improved management of ovarian dermoid cyst. Laparoscopy is the standard treatment of ovarian dermoid cyst. In this case, we performed the new minimally invasive surgery technique for ovarian cystectomy using Natural Orifice Transluminal Endoscopic Surgery (NOTES).

METHODS: In this presentation, we show the operation performed to the patient who was 34 years old came to the hospital with pelvic pain problem. Pelvic examination and ultrasound revealed a left ovarian cyst about 6 centimeters in diameter with mixed echoic content. Tumor markers were in normal range. Preoperative diagnosis was left dermoid cyst.

RESULTS: In operation, using this new technique, access is gained through a small vaginal opening by inserting a tiny camera and the necessary surgical instruments. The entire process is done through the vagina, so this method will leave the patient without any external scars. After surgery, patient gained a good recovery with minimal postoperative pain. The pathological reported mature cystic teratoma.

CONCLUSIONS: In conclusion, NOTES ovarian cystectomy offers many benefits for women, the aesthetic benefit of having no abdominal scar is the one of the best advantages of this technique. Also, there are fewer pain receptors internally than there are externally, resulting in less postoperative pain than any of the other laparoscopic surgeries done through the abdomen.

The postoperative recovery time is also much shorter. Patients can return to work within one to two days. Another benefit is that the risk of infection at the surgical site is very low due to the high blood flow to the vaginal area and the subsequent quick healing time. Moreover, the risk of surgical hernia is reduced after the operation. Anyway , experiences and good technical skill in laparoscopic surgery is needed to prevent postoperative

KEY WORDS: NOTES OVARIAN CYSTECTOMY

PP-084

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

GYNECOLOGY NOTES 123

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OBJECTIVE: To explain how to do Gynecology NOTES procedures for hysterectomy, oophorocystectomy and salpingectomy

METHODS: Natural Orrifice Transluminal Endoscopic Surgery

RESULTS: Vaginal vault closed completely

CONCLUSIONS: Gynecology NOTES provides higher quality of life and good cosmetic effect

PP-085

LAPAROSCOPIC TECHNIQUES AND OUTCOMES

NOTES HYSTERECTOMY -- A PRELIMINARY EXPERIENCES

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OBJECTIVE: To retrospectively review priliminary results of NOTES hysterectomy in our hospital

METHODS: We retrospectivele reviewed chart and patient data in the first five patient who receive NOTES hysterectomy in our hospital

RESULTS: The indication of surgery is: CIS of endocervix: 2; Myoma uteri : 2 ; Adenosarcoma: 1. The mean uterine weight is 180 grams. The mean operation times is 120 minutes. The mean blood loss is 50 ml. There's no peri-operative complications noted.

CONCLUSIONS: NOTES hysterectomy is feasible in selective patient according to our priliminary result.

KEY WORDS: NOTES , hysterectomy

PP-086

HYSTEROSCOPIC TECHNIQUES AND OUTCOMES

CASE REPORT :HYSTEROSCOPIC MANAGEMENT OF MISCARRIAGE AND RESECTION OF SUBMUCOSAL FIBROID

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OBJECTIVE: Uterine fibroids are benign smooth muscle tumors of the uterus and are the most common pelvic tumors in women. Fibroids are found in approximately 25 - 30% of reproductive age women. As more and more women choose to delay child bearing, the issue of fibroids in pregnancy is one that obstetric care providers are likely to face with increasing frequency. The reported prevalence of fibroids in pregnancy ranges from 0.09% to 3.9% and are associated with a 10% - 40% obstetric complication rate.Uterine myomas distorting the uterine cavity may increase the risk of spontaneous miscarriage during the early pregnancy. Currently , there is no standard approach to guide clinician in the optimal management of miscarriage in a patient with submucosal fibroid.We report a case of surgical evacuation of miscarriage and resection of fibroid through hysteroscopy.

METHODS: Case Report 37 years old chinese lady presented to our antenat clinic with positive pregnancy test at the gestational age of 6.4 weeks. She was asymptomatic and transvaginal scan revealed an intrauterine gestational sac compatible with 5 weeks and 5 days without fetal pole and yolk sac and there was a submucosal fibroids. Her Serum Beta HcG WAS 5638.2. tO Assess t5he the progress of pregnancy her beta HcG was repeated every 48 hours and results were 6151.1 U/L and 8069.9U/L.Due to the suboptimal rise of beta HcG transvaginal scan was repeated and it revealed 12 mm IUGS. It was confirmed as missed miscarriage .

RESULTS: Patient was offered conservative management as well as hysteroscopic guided evacuation with resection of submucosal fibroid. The uterine cavity was first evaluated via hysteroscopy and products of conception with submucosal fibroid was identified. Subsequently using the loop of the resectoscope as a curette, the products of conception was gently and selectively seperated from the underlying endometrium. Then submucosal myomectomy was done

CONCLUSIONS: As we discuss in our case surgical evacuation of miscarriage can be carried out with the assistance of hysteroscopy and even an associated pathology such as sbmucosal fibroids also can be removed under direct vision. Since3 these women may be at higher risk of retainedproducts of conception and recurrent vaginal bleeding following the use of the standard surgical evacuation procedures without hysteroscopy.Use of Hysteroscopy in those patients allows the complete visualisation of uterine cavity and also treatment of submucosal fibroids. Operative Hysteroscopy for evacuation of miscarriage associated with submucosla fibroid, is a surgical technique associated with low rate intrauterine adhesion and higher rate of subsequent pregnancies.The current literature lacks sufficient evidence to support the benefit of hysteroscopy over the traditional suction curettage for treatment of miscarriage, but further studies are necessary.

KEY WORDS: Hysteroscopic management of Miscarriage and resection of Submucosal fibroid

PP-087

HYSTEROSCOPIC TECHNIQUES AND OUTCOMES

HYSTEROSCOPIC INTRAUTERINE MORCELLATION (IUM) OF SUBMUCOSAL FIBROIDS - PRELIMINARY RESULTS IN HONG KONG AND COMPARISONS WITH CONVENTIONAL HYSTEROSCOPIC MONOPOLAR LOOP RESECTION

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OBJECTIVE: Traditionally, conventional resectoscope and loop resection represents the surgical treatment of choice for menorrhagia secondary to submucosal fibroids. Newer techniques such the intrauterine morcellation has been increasingly used. This preliminary review looked at the safety, satisfaction and efficiency of such technique and is one of the first of such report within the Hong Kong population. Comparisons were also made between the two techniques with the aim to identify the potential benefits.

METHODS: This is a case series where all cases of hysteroscopic resection of submucosal fibroids performed at Queen Elizabeth Hospital between 2011 and 2014, either by hysteroscopic intrauterine morcellation (IUM) - MYOSURE or conventional hysteroscope and loop resection were selected and case notes reviewed. Analysis and comparisons of technical details such as fibroid size, operative time, fluid deficits, operative complications, patient's satisfactions and improvement in haemoglobin were made between the IUM and the conventional group. All statistical results were calculated using the Mann-Whitney test.

RESULTS: Between 2011 and 2014, 29 cases of submucosal fibroids were managed by hysteroscopic surgery. 14 cases had conventional resectoscope and loop resection and 15 cases had hysteroscopic intrauterine morcellation (IUM). At three months of follow up, there was no significant difference in overall satisfaction outcome (84.6% for conventional method vs 93.3% for IUM method (p=0.841)). Both techniques showed improved haemoglobin level at 3 months but showed no significant difference between the two groups (+2.15g/dl (+0.1-+4.4g/dl) for IUM group and +1.7g/dl (-0.4-+4.0g/dl) for conventional group, p=0.235). Both techniques achieved 100% satisfaction if the submucosal fibroid had over 60% of its contents protruding into the uterine cavity. The operative time was significantly reduced for the IUM technique (avg. 36.6 minutes compare to 53.6 minutes, p=0.005) in particular to those whose fibroids were less than or equal to 3.0 cm (avg. 27.6 minutes compare to 53.4minutes P=0.019).

CONCLUSIONS: This retrospective review suggested the hysteroscopic intrauterine morcellation of submucosal fibroid is safe and effective method in the management of menorrhagia amongst Chinese population. Preliminary data suggest this technique to be less time consuming especially when managing fibroids less than or equal to 3.0 cm in size.

KEY WORDS: hysteroscopy , fibroid morcellation

PP-088

HYSTEROSCOPIC TECHNIQUES AND OUTCOMES

PROTECTION OF ENDOMETRIAL LAYER DURING THE HYSTEROSCOPIC SURGERY

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OBJECTIVE: Uterine fibroids are the most common pelvic benign tumor in women of reproductive age, with the incidence rate as high as 20%-50%. Among them, submucosal myoma is close to the uterine cavity, which may be associated with an increase of endometrial area, destruction of uterine cavity, obstruction of fallopian tube and abnormal distribution of blood vessel. Therefore, submucous myomas can lead to hypermenorrhea, female infertility and abortion. And an effective surgical treatment is quite necessary.

METHODS: Currently, hysteroscopic trans-cervical resection of myoma (TCRM) is considered to be the first-line conservative therapy for the management of symptomatic submucous myomas.

RESULTS: Compared with the abdominal surgery, TCRM is a natural orifice surgery and it can preserve the integrity of the uterine muscle wall, reduce trauma, decrease bleeding and accelerate recovery. For women with fertility requirements, the surgical treatment of TCRM is to remove the myoma entirely, meanwhile, protect the endometrium and reduce the injury of uterine muscle wall. First, evaluate the size, location and type of the myoma comprehensively and make clear the relationship between myoma and uterine muscle wall before surgery. Second, apply GnRH analogues to reduce the size of the myoma, thin the endometrium and decrease the blood supply of fibroids. Third, for submucous myomas of type ? { nd intramural myoma close to uterine cavity, use needle shaped electrodes for incision, fill the myoma capsule with perfusion medium through the "water pressure separation" and then cut the myoma using a circular electrode.

CONCLUSIONS: The above measures are effective methods to protect the endometrium and prevent destruction of the adjacent tissue, which are worthy of generalization in clinical work.

KEY WORDS: hysteroscopy , submucosal myoma , endometrial layer

PP-089

RARE CASES

CASE REPORT OF A RARE PURE UTERINE LIPOMA TREATED BY LAPAROSCOPIC HYSTERECTOMY

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OBJECTIVE: A pure uterine lipoma is defined a tumor consists totally of adipose cells; any smooth muscle cells present are peripherally displaced. A pure uterine lipoma is quite rare, the estimated incidence among uterine tumors considered to be in the range of 0.03-0.2%.It is not usually accompanied by any particular symptoms, making it extraordinarily difficult to diagnose correctly prior to surgery.We herein present a case of a 60-year-old woman diagnosed as having a pure uterine lipoma coincident with an ovarian tumor.

METHODS: Case report.

RESULTS: A 60-year-old woman was refferd to our hospital with both an ovarian and a uterine tumor. They were found by routine check-up, she did not present with any symptoms such as abdominal pain or abnormal bleeding. Ultrasonography examination showed a hyper-echogenic 2.5cm*2.0cm tumor in the posterior uterine wall and 5.5*5cm right ovarian tumor, hyper and iso-echogenic pattern. MRI imaging showed a 2.5*2cm tumor in myometrium, it showed high signal on T1 and T2 sequences, and the signal dropout on fat sat suppression sequences. Right ovary was 5.5*5cm size and it had features of a mature cystic teratoma. Laparoscopic-assisted vaginal hysterectomy and bilateral salpingo-oophorectomy was performed, the gross findings for the uterine wall showed a yellow-colored soft tumor of 25 mm in diameter. The content of the right ovarian tumor were hair and fatty tissue.The final histopathology confirmed a diagnosis of a pure lipoma of the uterus and a mature cystic teratoma of the right ovary.

CONCLUSIONS: We experienced a rare case of uterine lipoma. The physician should be aware that a uterine lipoma is an extraordinarily rare tumor and as such it is sometimes very difficult to diagnose. Conservative management can be chosen for the asymptomatic patients. If surgical treatment is decided upon, minimally invasive laparoscopic surgery can be a better choice.

KEY WORDS: pure lipoma , uterine tumor , laparoscopic hysterectomy

PP-090

RARE CASES

A CASE OF OVARIAN TUMOR WITH URACHAL CYST

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OBJECTIVE: The urachus is a tubular structure connecting the bladder and umbilicus, which is formed in early fetal life. The part is usually degenerate into cord- like structure, but when the degeneration does not occur in the advanced age, urachal cyst may develop as cystic structure, in the middle of the umbilicus and the bladder without communication.

METHODS: 52 y.o. female visited to our hospital because of cyst 7cm in size near in the ovary and cyst 3cm in size with calcification underneath the umbilicus, suffering from the upper abdominal pain lasting for 1 year. With the diagnosis of ovarian cystic teratoma, preoperative examination CT scan showed a cyst 3cm in size underneath the umbilicus. The cyst underneath the umbilicus was suspected as urachal cyst.

RESULTS: Some discussions with urologists before operation concluded the surgeries to two different cysts should be done at different times because of possibility, but rare, of malignancy and a short of time to the surgery for removal of the two cysts at the same time. In the first operation, for the purpose of avoiding to penetrate the structures in the mid-line of the body, we selected the gas-less method, or lifting hanger method for removal of the ovarian cyst. Ports for surgery were placed 2cm sized in the right side, 5mm sized in the left side and 5mm sized in 2cm upward from the umbilicus. Under the laparoscope, the cystic mass was attached in the abdominal wall covered the peritoneum, just under the umbilicus. The removed ovarian cyst was diagnosed as mature cystic teratoma. In the second operation, the abdominal mass was diagnosed as the urachal cyst with infection.

CONCLUSIONS: 52 y.o female patient suffering from the ovarian cystic teratoma and abdominal pain lasting for one year was diagnosed as the urachal cyst with infection after laparoscopic surgery as with minimally invasive and safety technique concomitantly.

KEY WORDS: urachal cyst

PP-091

RARE CASES

LAPAROSCOPIC SURGERY FOR ADNEXAL MASS RELATED TO APPENDICEAL MUCOCELE

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OBJECTIVE: Appendiceal mucocele is an obstructive dilatation of the appendiceal lumen due to the abnormal accumulation of mucus. Mucocele is identified in 0.2–0.3% of all appendectomies and may be a finding in cases of benign or malignant neoplasms, and can lead to the development of pseudomyxoma peritonei. It is infrequently discovered by gynecologists when a patient presents with right lower quadrant abdominal pain. Treatment of appendiceal mucocele is surgical. Fine-needle aspiration is not recommended, because it may cause rupture and spread of the neoplasm.

METHODS: CASE 1 A 60-year-old woman presented with right lower abdominal pain occasionally. A simple 7 × 4 cm cyst with smooth borders and a thick capsule was detected in the right adnexal area by transvaginal ultrasonography. The patient was admitted to our clinic with an initial diagnosis of adnexal cyst, later found to be appendiceal mucocele. She received laparoscopic appendectomy. CASE 2 A 45-year-old woman had a right adnexal mass found incidentally. A simple 8 × 4 cm cyst with smooth borders was detected in the right adnexal area by transvaginal ultrasonography. Pelvic CT scan showed a right ovarian lesion measured 7.6x3.8cm, favor ovarian cyst or hydrosalpinx. The patient was admitted to our clinic with an initial diagnosis of adnexal cyst, later found to be appendiceal mucocele. She received laparoscopic appendectomy. Pathologic examination revealed low-grade appendiceal mucinous neoplasm.

RESULTS: Mucocele of the appendix is very rare, and its preoperative diagnosis is very difficult. Women who have atypical

ultrasonographic findings in right adnexal masses (purely cystic mass with anechoic fluid, hypoechoic mass with variable internal echogenicity). These cases remind gynecologic surgeons to be familiar with primary appendiceal tumor and to inspect the appendix when the initial surgery is performed. The clinical picture can be misleading and the differential diagnoses of primary appendiceal tumor should be considered.

CONCLUSIONS: The signs and symptoms of appendiceal mucocele are not specific. Because of its anatomic position, it should be considered in the differential diagnosis of adnexal masses. Laparoscopic treatment can be performed and avoid rupture of tumor.

KEY WORDS: ovarian tumor , adnexal mass , Appendiceal mucocele

PP-092

RARE CASES

A RARE CASE OF HEMANGIOLYMPHANGIOMA ARISING FROM THE OVARIES

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OBJECTIVE: Hemangiolymphangioma is a rare hemangiomas and vascular malformations with benign behavior and favorable outcome. It usually finds in cutaneous locations during childhood. And rarely, occur in gastrointestinal system, most find at pancreas, duodenum and retroperitoneum. Here we report this case of a hemangiolymphangioma of the ovaries in an elderly patient.

METHODS: An 87-year-old woman, G6P5AA1, menopausal age at 55 year-olds, presented with abdominal fullness and jaundice. She was referred to our hospital due to dilated bile ducts with abdominal mass. On computed tomography (CT) scans, huge multiloculated cystic mass in the lower abdomen and pelvic region up to 20 cm in diameter, suspected cystadenoma arising from the ovary or ovaries. There was no lymphadenopathy in the supraclavicular fosses, mediastinum, paraaortic region, pelvic cavity and inguinal regions.

RESULTS: Laparoscopic bilateral salpingo-oophorectomy was performed. Histological examination of the resected specimen showed simple cyst and hemangiolymphangioma on bilateral ovarian cyst. Histopathological features showed ovarian tissue with a cyst lined by flat nondescript cells and a nodule composed of multiple thin-walled vascular spaces.

CONCLUSION: To our knowledge, there had no previous report about ovarian hemagiolymphangioma in the English literature. We reported an extremely rare case of hemagiolymphangioma arising from the ovary in elderly woman which resulted in compression symptoms. They can be resected completely with laparoscopic surgery.

KEY WORDS: Hemangiolymphangioma, laparoscopic surgery

PP-093

RARE CASES

TORSION OF PEDUNCULATED MYOMA - AN UNUSUAL CAUSE OF ACUTE PELVIC PAIN, A CASE REPORT

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OBJECTIVE: In this case report, we present a case of acute pelvic pain due to a torted myoma with review of related literature.

METHODS: Clinical history, physical examination, laboratory workup and radiology studies of the case are reviewed. Surgical findings are discussed, with intra-operative images displayed. A literature review is performed.

RESULTS: A 36-year-old Chinese woman presented with 2-day history of acute left lower abdominal pain. Physical examination was unremarkable, except for direct and rebound tenderness in both left and right iliac fossa with mild guarding. Laboratory analyses revealed a mildly increased white cell count with a normal hemoglobin and platelet count. A urine pregnancy test was negative. A pelvic ultrasound suggested an enlarged left ovary with 6cm cystic area and with no demonstratable vascularity in the rim of left ovarian tissue, possibly ovarian torsion. An emergency diagnostic laparosocpy was performed. During laparoscopy, there was a hemorrhagic, infarcted, cystic structure, measuring 7 x 4 cm in size, attached to the right fundus of the uterus with a thin pedicle which was torted multiple times. Both ovaries appeared normal. The cystic structure was removed and hisotoloy showed a leiomyoma with diffuse hemorrhagic infarction.

CONCLUSIONS: Torsion of leiomyoma is an infrequent complication. Symptoms are non-specific and can mimic other common etiologies of acute abdominal pain, including ovarian torsion, as shown in this case. Pre-operative diagnosis is usually difficult despite various imaging modalities. In an emergency setting, after excluding other possible causes, laparoscopy should be preferred for more accurate diagnosis and treatment.

KEY WORDS: Acute pelvic pain , Leiomyoma , Torsion

PP-094

UROGYNECOLOGY AND PELVIC FLOOR

COMBINED ANTERIOR PELVIC FLOOR RESTRUCTION WITH IMPROVED SACROSPINOUS LIGAMENT FIXATION FOR UTEROVAGINAL PROLAPSE : CLINICAL OUTCOME AND IMPACT ON QUALITY OF LIFE

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OBJECTIVE: To evaluate the clinical outcome and the impact on quality of life of anterior pelvic floor restruction augmentation with concomitant improved sacrospinous ligament fixation (SSLF) or with concomitant posterior colporrhaphy for uterovaginal prolapse

METHODS: 93 Patients who were diagnosed with III-IV degree pelvic organ prolapse (POP-Q) are randomly allocated to improved SSLF group or posterior colporrhaphy group. 49 patients underwent anterior pelvic floor restruction and improved SSLF, which was performed with surgical mesh interposition,and 44 patients underwent anterior pelvic floor restruction and posterior colporrhaphy between July 2013 and June 2015 in Shanghai First Maternity and Infant Hospital of Tongji University. The results at preoperative and postoperative 6th, 12th and 24th months of the POP-Q and the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire-12 (PISQ-12) and Pelvic Floor Distress Inventory-short Form 20(PFDI-20) were compared using t-test for paired samples. Values of $p<0.05$ and $t<0.01$ were considered statistically significant.

RESULTS: The mean operation time was 88±20 minutes in improved SSLF group and 70±19 minutes in posterior colporrhaphy group.The mean intraoperative blood loss was 77±43ml and 55±27ml respectively. The mean postoperative follow-up period was 21.9±6.9 months. An objective anatomic cure was reported for 96%(47/49) and 93%(41/44) of patients, and significant improvement of all prolapse symptoms was observed following surgery ($p<0.001$). The total PISQ-12 scores revealed significant improvement in the symptoms of the patients compared to the preoperative scores ($p=0.001$) in improved SSLF group and had no significant different in posterior colporrhaphy group. The comparison of preoperative and postoperative PFDI-20 scores(POPDI-6,CRADI,UDI-6) revealed strong significant differences.

CONCLUSIONS: The anterior pelvic floor restruction combined with improved SSLF or with posterior colporrhaphy can successfully repair defects of the uterovaginal prolapse.The quality of life outcomes were higher in improved SSLF group.It may be the primary surgical option for women with uterovaginal prolapse.

KEY WORDS: Anterior pelvic floor restruction , Improved sacrospinous ligament fixation , Posterior colporrhaphy, Uterovaginal prolapse

PP-096

UROGYNECOLOGY AND PELVIC FLOOR

LAPAROSCOPIC PARAVAGINAL REPAIR FOR ANTERIOR VAGINAL WALL PROLAPSE:AN INITIAL EXPERIENCE

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OBJECTIVE: The aim of this study is to reveal the early outcome of prolapse patients underwent LSC combined laparoscopic paravaginal repair in our group

METHODS: A retrospective study was performed to collect data of prolapse patients underwent LSC combined laparoscopic paravaginal repair in Kameda Medical Center and Kitakyusyu General Hospital. We did a medical chart and video review for each case

RESULTS: 3 cases were included in this study. The Age of 3 cases were 72, 66, and 62 years old respectively. All of 3 patients had stage3 prolapse. Operating time were 267, 197, and 110 minutes respectively. However, operating time for paravaginal repair were 42, 26, 27 minutes. Blood loss were 10, 5, and 0 ml. No post-operative recurrence was found in second month follow-up.

CONCLUSIONS: From our early experience, laparoscopic paravaginal repair is an effective and safe procedure for anterior vaginal wall repair

KEY WORDS: Laparoscopic sacrocolpopexy , Laparoscopic paravaginal repair

PP-097

UROGYNECOLOGY AND PELVIC FLOOR

TIMING OF URINARY CATHETER REMOVAL AFTER LAPASCOPIC GYNECOLOGICAL SURGERY: A QUASI-EXPERIMENTAL DESIGN

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OBJECTIVE: To assess whether early (after operation 6 hour) or delayed removal (after operation 12-24 hour) of an indwelling urinary catheter after gynecological benign surgery can affect the rate of re-catheterization due to retention, ambulation time and length of hospital stay day.

METHODS: Quasi-experimental design conducted at medical center in northern Taiwan. A pilot study using purposive sampling conducted in these twenty patients were divided into two groups. The in-dwelling catheter was removed at 6 hour (experimental group A,10 patients), or at 12-24 hour (control group B, 10 patients) after operation. The main outcome measures were the frequency of urinary retention, ambulation time and length of hospital stay day.

RESULTS: There was no significant higher number of urinary retention episodes requiring re-catheterization in the early and delayed removal groups ($p=0.3$). Delayed urinary catheter removal was associated with delayed ambulation time(25.5hrs) and longer hospital stay (5 days) compared to the early (5.3hrs and 3.5 days) .

CONCLUSIONS: Early catheter removal didn't have a higher rate of re-catheterization. Patients early ambulation can accelerate recovery, reducing the days of hospitalization can improve patient's satisfaction and more economic benefits.

KEY WORDS: In-dwelling catheter , early catheter removal , hospital stay day

PP-098

UROGYNECOLOGY AND PELVIC FLOOR

A CONTRIVANCE FOR SHORTENING THE SURGICAL TIME OF LAPAROSCOPIC SACROCOLPOPEXY (LSC)

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OBJECTIVE: Laparoscopic sacrocolpopexy (LSC) is an effective surgical treatment for pelvic organ prolapse (POP), as for low recurrence rate and high quality of life postoperatively except the longer surgical time. To medical staffs, the images under laparoscope can provide not only sharing of information between the staffs during the operation, but also the better understanding of the procedure of the surgery for trainee doctors and nurses. We intended the possibility of shortening surgery times by improving the procedures by reviewing respective parts of the surgical process, retrospectively.

METHODS: From April 2015 until June 2016, we performed LSC to 8 POP patients. We analyzed all the procedures from the recorded video as measuring the time required each process dividing into 5 major parts as follows. 1) the time from the beginning to the amputation of the uterus (time1) 2) the time for preparing the attaching mesh (time2) 3) the time for attaching and fixing the mesh (time3) 4) the time for peritonization of covering the mesh (time4) 5) the time for removal of the resected uterus and closing (time5)

RESULTS: The average measurements (mean,SD,range) are as follows. Age : 66.6 y.o.(SD 9.7range 55-79), Bleeding : 90 ml (104,10-300) Total surgery time 247min. (33.8, 201-304), time1:88.0 min. (26.3, 53-138), time2:42.9 (20.6, 25-70), time3:36.5 (17.8, 18-66), time4:36.0 (9.3, 20-49), time5:44.1 (18.1, 23-52). We could find overall tendency of our operations from these data. To compare the data of the individual patient, it was supposed to reveal problems of individual cases, for example, uterine fibroid s, ovarian cysts, wide adhesion, accidental bleeding and etc.

CONCLUSIONS: Acquiring the time required for each process expects that the longer time of surgical procedure is whether by the specific factors of patients or not. By analyzing each of the process more precisely, we would apply to solve the problems, such as 'What procedures should be improved?', 'What procedure should be alternative ?' and so on…

KEY WORDS: laparoscopic sacrocolpopexy , surgical time

PP-099

UROGYNECOLOGY AND PELVIC FLOOR

PERIOPERATIVE COMPLICATIONS AND SUBSEQUENT PELVIC FLOOR DISORDERS AFTER SUBTOTAL AND TOTAL HYSTERECTOMY: A POPULATION-BASED STUDY

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OBJECTIVE: To determine whether total hysterectomy related to higher risk of perioperative complication and the subsequent pelvic floor disorders

METHODS: Data for this study were obtained from the Taiwan National Health Insurance (NHI) database. After The exclusion criteria was applied, we identified patients had a history of total or subtotal hysterectomy in the population during 1997-2013.Match the total and subtotal hysterectomy groups by age and with a ratio of 5:1.Compare the incidence of the following outcomes between two groups: a. Perioperative complications such as bladder and ureter injury, blood transfusion etc. b. Pelvic organ prolapse (POP) and urinary incontinence (UI). c.Genital tract fistula. How many of them need surgical repair? We also evaluate how many of them received pelvic floor repair (PFR) after hysterectomy? We adjust for following confounding factors: 1.Advancing age ; 2.Parity by vaginal delivery(include those in labor and then converted to C/S);3.Obesity ;4.Chronic constipation ;5.Urbanization.

RESULTS: The results will be reported

CONCLUSIONS: Total hysterectomy is associated with a higher risk of pelvic organ prolapse and more adverse events when compare to subtotal hysterectomy. The result of this study need large scale randomized long-term clinical trial to confirm the relation.

KEY WORDS: total hysterectomy , pelvic floor disorder , pelvic organ prolapse

PP-100

UROGYNECOLOGY AND PELVIC FLOOR

COMPREHENSIVE EVALUATION OF SINGLE-INCISION ELEVATE SYSTEM FOR THE TREATMENT OF PELVIC ORGAN PROLAPSE

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OBJECTIVE: We present a comprehensive evaluation of Elevate anterior/apical and/or posterior prolapse repair system with a focus on safety and surgical efficacy.

METHODS: Two hundred and twenty women with POP stage II to IV were referred for Elevate mesh procedures. Preoperative and postoperative assessments included pelvic examination, urodynamic study, and a personal interview about quality of life and urinary symptoms.

RESULTS: The anatomical success rates were 92.3 % (203/220) regardless of primary or de novo POP after a follow-up of 12-38 months. The POP-Q parameters, UDI-6 and IIQ-7 scores all

improved significantly after surgery. Complications included 1 case of bladder injury, 6 cases of mesh exposure, and 5 cases of urine retention that required intermittent catheterization. There were no bowel injury during surgery.

CONCLUSIONS: Our experience suggests that the Elevate prolapse repair System is a safe and effective procedure, creating a good anatomical restoration and significant improvements in quality of life.

KEY WORDS: Single-Incision mesh , Elevate , pelvic organ prolapse

PP-101

UROGYNECOLOGY AND PELVIC FLOOR

LAPAROSCOPIC SACROCERVICORINGPEXY FOLLOWING CERVICAL LIGAMENT-SPARING HYSTERECTOMY

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OBJECTIVE: To propose a new minimal invasive approach of sacrocervicoringpexy after the cervical ligaments sparing hysterectomy (CLSH).

METHODS: The CLSH procedures were performed in two phases, Phase 1: a laparoscopic approach involving supracervical hysterectomy by using a cutting loop, conisation through the internal os of the cervix; Phase 2: wide excision of the cervix through the vagina. As the procedure in sacrocervicopexpy, the peritoneum was opened from sacral promontory to the cul-de-sac for Y mesh implantation. Transvaginally, tie with 2-0 unabsorable Ethibond with the tip of the mesh, suture from the inside to the outside of cervical ring as a figure of eight suture, a total of two sutures were suggested. Transvaginally, close the cervical wound with 1-0 monocryl in interrupted manner. Laparoscopically, fix the mesh with cervical ring as in the vagina part and closed the internal os with 1-0 V-loc. Adjust the appropriate height and tension of the cervical ring, use three to four metal nail (ProTract) to fix the mesh at sacrum. Finally, close the peritoneum so that the mesh was covered by peritoneum

RESULTS: Endocervical gland and transformation zone excision in this approach can eliminate cyclic vaginal spotting and cervical cancer. We leave only the stroma of cervix which is strong enough to support the mesh, less or no mesh displacement is expected and we believe this supportive system is more stable. We hope that we will have an opportunity to show the figures and surgical procedures in detail in the coming annual congress of APAGE.

CONCLUSIONS: More cases are needed to determine the efficacy of this new approach.

KEY WORDS: Sacracervicoringpexy , cervical ligaments sparing hysterectomy , laparoendoscopic sacracervicopexy

PP-102

UROGYNECOLOGY AND PELVIC FLOOR

UTERINE PRESERVATION IN LAPAROSCOPIC SACROCOLPOPEXY: CLINICAL OUTCOME IN KAMEDA MEDICAL CENTER

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OBJECTIVE: Despite hysterectomy is commonly performed in any surgical treatment of pelvic organ prolapse (POP) including laparoscopic sacrocolpopexy (LSC), a significant number of low-risk women prefer to retain their uterus. Nonetheless, the data on efficacy and safety of uterine preservation during LSC remain lacking. Therefore this study aims to evaluate the clinical outcome of laparoscopic sacrocolpopexy with uterine preservation..

METHODS: This is a retrospective study involving the patients, who underwent uterine preservation LSC in our center from June 2013 to October 2015. The baseline characteristics, intra-operative and post-operative details were retrieved from the unit database.

RESULTS: Thirty-nine patients are included in this study. The mean age was 61.8 years old and the mean body mass index (BMI) was 23.4 kg/m2. Based on the Pelvic Organ Prolapse Quantification (POP-Q) assessment, 7(18%) patients had Stage 2, 29 (74%) patients had Stage 3 and 3 (8%) patients had Stage 4 POP. The mean operating time was 232.7 minutes. None received any intra-operative or post-operative blood transfusion. All patients had significant improvement in the POP-Q score at 18.9 months follow-up. There were only 4 patients developed recurrence POP (Defined as > Stage 2 POP) and only one of them required subsequent transvaginal mesh surgery.

CONCLUSIONS: The technique of uterine preservation in LSC is a safe and effective treatment for POP. Hence, it should remain as an option for low-risk women who wish to retain their uterus.
KEY WORDS: pelvic organ prolapse , laparoscopic sacrocolpopexy , uterine preserving

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UROGYNECOLOGY AND PELVIC FLOOR

CERVICAL PRESERVATION COULD AVOID MESH EXTRUSION IN LAPAROSCOPIC SACROPEXY PROCEDURE

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OBJECTIVE: Laparoscopic sacrocolpopexy, sacrohysteropexy or sacrocervicopexy is one of the surgical methods for pelvic organ prolapse. When considering this kind of pelvic reconstruction surgery, to preserve uterus or not is our concern. In this study, we'd like to compare the clinical outcome of sacrocolpopexy to sacrohysteropexy and sacrocervicopexy.

METHODS: This is a retrospective study and we enrolled the patients who received pelvic organ reconstruction surgery with laparoscopic sacrocolpopexy, sacrohysteropexy or sacrocervicopexy with Y-shaped mesh from July, 2012 to August, 2015. Total 60 patients were available to be collected with complete parameters we tried to analyze. The patients underwent sacrocolpopexy were labeled as group A while others were classified to group B. Baseline characteristics, blood loss, operative time, length of hospital stay, POP-Q measurements, recurrence of pelvic organ prolapse (which was defined as POP-Q stage >=2) and complications were collected and compared between these two groups.

RESULTS: Twenty-five patients underwent sacrocolpopexy while 35 patients underwent sacrohysteropexy or sacrocervicopexy. The mean follow-up period of two groups were 15.6 and 13.8 months, respectively. The mean age were 49.4 and 50.8 years old, respectively, without significant difference. POP-Q measurements (Aa, Ba, C, Ap, Bp) improved significantly ($P < 0.001$) in both groups. In group A, there was one recurrent POP who had cystocele stage 2 to 3 around thirty-seventh months after the sacrocolpopexy. Group B also had one recurrence with uterine prolapse stage 2 to 3, which was found around seventh month postoperatively. Group A had significant more mesh exposure (N=6; 24.0%, and 4 of them received removal of mesh) while only 2 patients (5.7%) had mesh exposure in group B (p=0.040). Other incidence of related adverse events such as transient buttock pain, de novo stress incontinence, urinary retention, and dyspareunia were similar in these two groups.

CONCLUSIONS: In this study, we found that the efficacy was similar whether we anchored Y-shaped mesh on vaginal vault or cervix. However, more mesh exposure occurred when we performed sacrocolpopexy. Therefore, to preserve uterus or cervix might be a better choice than sacrocolpopexy.

KEY WORDS: Pelvic organ prolapse , Sacrocolpopexy , cervical preservation

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UROGYNECOLOGY AND PELVIC FLOOR

MEDIUM-TERM COMPARISON OF UTERINE SPARING VERSUS HYSTERECTOMY IN PELVIC RECONSTRUCTION TREATED WITH ELEVATE SYSTEM MESH

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OBJECTIVE: This study aims to compare the surgical outcomes and complications between hysterectomy and uterine sparing in treatment of severe prolapsed uterine with single incision transvaginal mesh of Elevate system.

METHODS: 255 patients diagnosed with POP-Q stage 3/4 uterine prolapse who have undergone reconstructive repair with trans-vaginal Elevate system mesh from November 2010 to November 2014 were identified by chart reviews. All patients were divided into two groups: hysterectomy (n=183) and uterine sparing(n=73). Pre-operative and post-operative subjective assessments urine and prolapsed symptoms, objective POP-Q score, urodynamic examination, and complications were compares between the groups.

RESULTS: The mean follow-up periods were 36 months (range 24-70 months). There were no between-group differences in anatomy and functional outcomes after surgery. No statistically significant differences were found in postoperative adverse events between the groups. Pelvic reconstruction using Transvaginal mesh (Elevate system) with hysterectomy or uterine sparing results in similar anatomic, functional outcomes and complications at 3 years follow up. Thus, in selected patients undergoinguterine prolapsed repair, we consider uterine sparing a viable alternative to hysterectomy. When discussing TVM repair, the possible adverse events should be discussed with the patients in details, and the possibility of uterine preservation.

CONCLUSIONS: Pelvic reconstructive repair using Elevate mesh system with hysterectomy and uterine sparing surgery has similar anatomic and functional results at 3 years. Therefore, we consider uterine sparing surgery to be an alternative to hysterectomy in prolapsed uterine repair.

KEY WORDS: Elevate system , Uterine sparing , Pelvic organ prolapse

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UROGYNECOLOGY AND PELVIC FLOOR

META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS TO COMPARE DIFFERENT KINDS OF SURGICAL MESH USED IN ANTERIOR VAGINAL WALL PROLAPSE REPAIR

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OBJECTIVE: There are different types of surgical mesh for different purposes that have different outcomes in pelvic organ prolapse repairs. Here we conduct a better fundamental epidemiological meta-analysis of randomized controlled trials to compare different kinds of surgical mesh used in anterior vaginal wall prolapse repair.

METHODS: Only selected randomized controlled studies from which anterior colporrhaphy is used for anterior vaginal wall prolapse. A primary electronic search was implemented in PubMed, MEDLINE, Google Scholar and ClinicalTrials from January 2000 to December 2015. Key word terms: pelvic organ prolapse, anterior vaginal wall prolapse, anterior colporrhaphy, cystoceles, mesh, biological graft, polyglactin, polypropylene and porcine were used. Only English language publications were included. Our inclusion criteria were randomized controlled trials that compare the effectiveness of surgical mesh versus non-

mesh colporrhaphy. Study participants were female patients undergoing colporrhaphy for anterior vaginal wall prolapse for any reason. All follow-up period were allowed. Information on the following parameters were extracted and entered into our database: study design, type of intervention, surgical method, number of patients, follow-up in months, recurrence rate, and complications.

RESULTS: 10 studies out of 1420 papers fulfilled the inclusion criteria. We have obtained some short-term and long-term evidence to suggest that anterior vaginal wall prolapse recurrence rates were less if meshes were used. In comparison between different types of meshes or grafts, polypropylene mesh had lower anatomic recurrence than absorbable polyglactin 910 mesh and biological graft. We have also obtained some evidence to suggest that the mesh-related complications.

CONCLUSIONS: The use of mesh or graft inlays at the time of anterior vaginal wall repair reduces the risk of recurrent anterior wall prolapse, however, adequately powered randomized controlled clinical trials are still needed on a wide variety of issues.

KEY WORDS: pelvic organ prolapse , anterior colporrhaphy , mesh

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UROGYNECOLOGY AND PELVIC FLOOR

WHAT IS THE CONNECTION BETWEEN THE SEVERITY OF GLOMERULATIONS DETECTED BY CYSTOSCOPIC HYDRODISTENSION AND INTERSTITIAL CYSTITIS/BLADDER PAIN SYNDROME?

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OBJECTIVE: Interstitial cystitis/bladder pain syndrome (IC/BPS) is a chronic pelvic pain syndrome (> 6 months) accompanied by urinary frequency or urgency, for which no reliable treatments exist. Although, glomerulations are no longer part of the diagnostic evaluation in many guidelines of IC/BPS today. Many clinics still believed that glomerulations are an important finding in the diagnosis of IC/BPS. The glomerulation is also one of the payment standard, the treatment of IC/BPS with hyaluronic acid, in our national health insurance. Because of lacking evidence, the role of glomerulations in IC/BPS is still unclear. We want to evaluate the correlation between the severity of glomerulations and IC/BPS.

METHODS: According the diagnostic criteria described in the ESSIC (International Society for the Study of BPS) guidelines, patients with newly diagnosed interstitial cystitis/bladder pain syndrome (IC/BPS) between August, 2014 and May, 2016 in a tertiary hospital were recruited. All patients underwent cystoscopic hydrodistension at an intravesical pressure of 80 cm of water for glomerulations and received 9 intravesical instillations of 40 mg hyaluronic acid for six months (One dose every week for first four dose and one dose every month for the other five month, total 9 dose). Symptomatic changes after hyaluronic acid treatments were assessed using hospital anxiety and depression scale (HADZ), O'leary-Sant questionnaire, and Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-12).

RESULTS: There are total 27 patients included in this study. We divided bladder into five zones, including trigone, posterior, dome, left lateral wall, and right lateral wall. The degrees of glomerulations is from grade 0 to grade 3. 17 patients (63.0%) identified with glomerulations beyond grade 2 and the involving areas of bladder are more than 3 areas (P=0.001). In addition, these patients have lower average voiding volume (P=0.038) and higher ICPI (P=0.042). The trend of average visual analog scale (VAS) pain score is also increasing, although the P value is not significant.

CONCLUSIONS: The results of our study have shown that the severity of glomerulations correlate with the symptoms of bladder pain syndrome/interstitial cystitis. Although the etiology of this disease is still unclear, some studies have showed cellular immunity play an important role in the pathogenesis of IC/BPS. Thus, it seems likely that neovascularization, including glomerulations during hydrodistension, are highly associated with the prognosis of IC/BPS.

KEY WORDS: Cystoscopy , Glomerulation , Interstitial cystitis/ bladder pain syndrome (IC/BPS)

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UROGYNECOLOGY AND PELVIC FLOOR

DISCUSSION ABOUT VESICO-VAGINAL FISTULA: HOW AND WHEN TO REPAIR?

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OBJECTIVE: In Taiwan, a developed country, vesico-vaginal fistulas are becoming uncommon than the past time. However, this complication is still frustrating to patients and is a real challenge to deal with. Here, we demonstrated two cases with vesico-vaginal fistulas repaired with transvaginal approach successfully.

METHODS: Case1: The 39-year-old woman, who had received laparoscopic assisted vaginal hysterectomy, presented with urine leakage about 2 weeks later. The vesico-vaginal fistula around 1cm over the left lateral posterior wall of urinary bladder was noted. Transvaginal repair for the fistula was performed. Thirteen days after the operation, the urinary catheter was removed and the patient voided well without urine leakage from vagina. Case2: The 53-year-old woman diagnosed with vesico-vaginal fistula. She received renal transplantation for diabetes-related ESRD. Left nephroureterectomy with bladder cuff excision was performed on November 30, 2015 for left renal pelvic and ureteral cancer. Urine leakage was noted since July, 2016. Cystoscopy revealed a vesico-vaginal fistula next to the left ureteral orifice area. Transvaginal repair for the fistula was performed. A urinary catheter was inserted after repair for 2 weeks and the patient tolerated the procedure well.

RESULTS: Both patients recovered well after the repair and no further complication such as ureteral kinking was occurred.

CONCLUSIONS: Because vesico-vaginal fistula is becoming less and less, few surgeons are well-trained to repair such kind of complication. If the fistula occurs, referral to specialist for further evaluation and repair is necessary. Last, and also the most important, prevention is the priority to keep in mind.

KEY WORDS: vesico-vaginal fistula , complication , transvaginal repair

PP-108

UROGYNECOLOGY AND PELVIC FLOOR

ASSOCIATION OF LOWER UROGENITAL TRACT NERVE GROWTH FACTOR AND URODYNAMICS AFTER VAGINAL SYNTHETIC MESH IMPLANT ON A RAT MODEL: FUNCTIONAL AND IMMUHISTOCHEMICAL COLLATIONS

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OBJECTIVE: We aimed to create a rat model for a synthetic mesh implantation between bladder and vagina, mimicking the vaginal mesh in humans. We examined the functional and immunohistochemical changes to find out the mechanism behind these complications.

METHODS: We divided 38 virgin female Sprague Dawley (SD) rats into 3 groups: mesh implantation (Study), no mesh implantation (Sham), and Control groups. Mesh and Sham groups were further divided into two subgroups for conscious cystometrogram (CMG), leak-point pressure (LPP) testing, and immunohistochemistry study of vaginal tissue harvested at 4 or 10 days after mesh implantation. The vaginal tissue underwent immunohistochemistry and western blot analysis of nerve growth factor (NGF). Urodynamic study (UDS) and NGF results were compared between groups. Paired-samples t-test and Fisher exact test were applied for comparison of continuous and categorical data, respectively. Values of $p<0.05$ were considered statistically significant for all comparisons.

RESULTS: Voiding pressure (VP) and voided volume (VV) have shown no difference among the groups. Both the Study and Sham have a shorter voiding interval and only the study group presented on Day 4 revealed a statistically significant difference ($p=0.034$) when compared to Control. The LPP in the Mesh and Sham showed a tendency of a lower value than the Control. Only the Study group presented on Day 10 has shown with a statistically significant difference when compared with the Control ($p=0.048$). The NGF level increased significantly in the Study and Sham group at day 4 postoperatively as compared to the Control. The rise in the Sham group returned to the same level but Study group as compared to the Control on the 10th post operatively. The magnitude of the decline on NGF level was lesser in the Study group and with a level of significantly higher than the Control and Sham group at post-operative day 10.

CONCLUSIONS: Complications after POP surgeries with mesh implantation may be related to increased NGF expression.

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KEY WORDS: Sprague Dawley (SD)

PP-109

UROGYNECOLOGY AND PELVIC FLOOR

LONG TERM OUTCOMES AFTER 5 YEARS OF TRANS-OBTURATOR TAPE FOR URODYNAMIC STRESS INCONTINENCE (USI)

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OBJECTIVE: The aim of the study is to evaluate long term safety and efficacy of trans-obturator tape (Monarc TM) in the management of urodynamic stress incontinence (USI).

METHODS: Prospective case control study from Feb 2006 to March 2009 that underwent TOT Monarc. Objective cure of SUI was defined as no urinary leakage demonstrable on provocative filling cystometry and 1-h pad test of a weight <2 g. Subjective cure of SUI was based on negative response to urogenital distress inventory six (UDI-6) (question 3). Inclusive criteria: clinically confirmed SUI and urodynamic stress incontinence (USI). Followed up was on 1 week, 1 month, 3 months, 6 months, and annually thereafter. Post-void residual urine measurements, UA, pelvic examinations, multichannel urodynamics and Pad test performed pre-OP, post-operation 1 year and third year. Subjective evaluation with IIQ-7, UDI-6 and PISQ-12 were done annually.

RESULTS: 60 patients were enrolled in this study. 92% patient able to be evaluated at 5 years, after a mean follow up of 80.3 ± 9.6 months. Patient mean age was 52.9 ± 14.1. Mean parity was 2.8±1.4 (range 2.4-3.2). Mean BMI was 25.4±3.6 (range 24.4-26.3). Mean operating time 31.1±8.9 minute, mean intraoperative blood loss 29.1±44.9 ml and mean hemoglobin difference preoperative and postoperatively was 0.8±0.8 g/dl. No mesh related complication seen. At 1 year follow up the objective cure rate 95% and subjective cure rate 93.3%. At 3 year follow up, objective cure rate was 91.1% and subjective cure rate was 88.3%, 1 patient require repeated incontinence surgery and 2 (3.6%) patients developed detrusor overactivity incontinence (DOI). At 5 years objective cure rate was 89.1% and subjective cure rate was 87.2%.

CONCLUSIONS: TOT Monarc is safe and have high cure rate that maintain after 5 years follow up.

KEY WORDS: urodynamic stress incontinence (USI)

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UROGYNECOLOGY AND PELVIC FLOOR

RISK FACTORS FOR SURGICAL FAILURE FOLLOWING SECONDARY MID-URETHRAL SLING FOR RECURRENT OR PERSISTENT STRESS URINARY INCONTINENCE

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OBJECTIVE: Aim: To study the outcomes of secondary midurethral sling (MUS) in persistent or recurrent stress urinary incontinence (SUI) after a failed primary MUS and risk factors for the surgical failures.

METHODS: Medical records of 24 patients who underwent repeat MUS at a single tertiary centre from Jan 2004 to Feb 2014 were reviewed. The types of secondary MUS used were transobturator, retropubic and single incision sling. Objective cure rate was defined as no demonstrable involuntary leakage of urine during increased abdominal pressure, in the absence of a detrusor contraction observed at filling cystometry and subjective cure as negative response to urogenital distress inventory six (UDI-6) question 3 at follow up between 6 months to 1 year post-operatively. Change of inclination angle between urethra and pubic axis was measured with introital ultrasound and cotton swab test performed.

RESULTS: The objective and subjective cure rate was 79.2 % and 75%, respectively. There were no demographic differences between the failure and success group. Significant independent risk factors for secondary MUS failure were cotton swab < 300 (OR 4.6, 95% CI, 2.5-7.9), change of inclination angle <300 (OR 4.6, 95% CI, 2.5-7.9), Intrinsic sphincter deficiency (OR 3.4, 95% CI, 1.8-6.1) and Mean urethral closure pressure (MUCP) <60 cmH2O (OR 2.9, 95% CI, 1.5-4.5). One case of bladder perforation was encountered.

CONCLUSIONS: Secondary MUS is safe and has good short term success rate, both objective and subjectively, with independent risks for failure were related to bladder neck hypomobility and poor urethral function.

KEY WORDS: stress urinary incontinence (SUI)

PP-111

UROGYNECOLOGY AND PELVIC FLOOR

TIPS FOR LAPAROSCOPIC PELVIC RECONSTRUCTION

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OBJECTIVE: Significant debate remains over the long-term cure rate and the safety of tension-free vaginal mesh. Abdominal sacrocolpopexy has been considered the gold standard procedure for the surgical correction of pelvic organ prolapse with its efficacy and long-term durability. Obviously, the current trend for pelvic organ reconstruction in Taiwan has changed that laparoscopic approaches such as sacrohysteropexy, sacrocervicopexy and sacrocolpopexy become more popular alternative interventions for patients with pelvic organ prolapse. Laparoscopic approach for pelvic organ prolapse has advantages such as low mesh erosion rate, mesh exposure rate and infection rate. For younger patients with pelvic organ prolapse, laparoscopic pelvic reconstruction has the advantage of less chance of dyspareunia and shortened vagina than transvaginal mesh usage.

METHODS: We demonstrate a 32 y/o patient, G3P2A1, with uterine prolapse stage III, cystocele stage II and rectocele stage II who received laparoscopic sacrohysteropexy with Alyte Y mesh. Second, we demonstrate one 60 y/o patient, G5P3A2, with procidentia who received laparoscopic assisted vaginal hysterectomy followed by sacrocolpopexy. For the patient who received sacrohysteropexy, the uterus is supported by synthetic macroporus polypropylene mesh to anterior longitudinal ligament of the sacropromontory with the short arms of Y mesh fiexd around the cervix to make a level 1 supprot. For advanced pelvic organ prolapse such as the second patient with procidentia, the uterus is supported by synthetic macroporus polypropylene mesh to anterior longitudinal ligament of the sacropromontory after hysterectomy. Then, we fixed the short arms of Y mesh around the vaginal cuff to the perineal body level by laparoscopic approach to make a complete level I and III support for the advanced case.

RESULTS: The operative time, blood loss, and the length of hospital stay were 150 minutes, 15 ml, and 5 days for the patient who received laparoscopic sacrohysteropexy with Alyte Y mesh. The operative time, blood loss, and the length of hospital stay were 175 minutes, 30ml, and 5 days for the patient who received laparoscopic assisted vaginal hysterectomy followed by laparoscopic sacrocolpopexy with Alyte Y mesh.

CONCLUSIONS: Depending on different condition for patient with pelvic organ prolpase, laparoscopic sacrohysteropexy and sacrocolpopexy could be offered for patients.

KEY WORDS: laparoscopic pelvic reconstruction

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COMPLICATIONS

HEMATURIA WITH ACUTE URINE RETENTION AFTER OOCYTE RETRIEVAL

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OBJECTIVE: Transvaginal ultrasound-guided oocyte retrieval prescribed by Wikland et al. in 1985 is a major method currently in women undergoing in vitro fertilization procedure. Although the rate of complications is very low, cases of intra-abdominal bleeding, infection, and ovarian torsion have been reported.

METHODS: A 34-year-old woman with a 4-year history of primary infertility is a case of polycystic ovarian syndrome. She ever had two failed attempts at intrauterine insemination. Her hormone status was normal except for serum AMH value (10.64 ng/ml). Office hysteroscopy done showed the normal cervical canal, uterine cavity and tubal ostia. Transvaginal ultrasonography showed a normal-sized uterus and bilateral ovaries with small multi-cysts. Controlled ovarian stimulation was achieved by GnRH-antagonist protocol. Sixteen oocytes were retrieved smoothly and all developed to blastocyst stage subsequently.

RESULTS: Around four hours after oocytes retrieval, she presented with urine retention and severe suprapubic pain. A total of 500mL of bloody urine was collected with bladder catheterization. Abdominal ultrasound revealed blood clots in the bladder. She was admitted for observation and bladder irrigation was done to drain away clots. On day 5 after oocyte retrieval, laboratory analysis revealed further anemia (hemoglobin level 10.8mg/L). Cystoscopy showed mucosal hypervascularity

and blood clots. We use Ellik bladder evacuator to rinse blood clots but found no active bleeding. Since her clinical status was compatible for embryo transfer, one blastocyst was transferred immediately after operative cystoscopy. Two days later, urine catheter was removed and she was discharged in stable condition. The pregnancy test 14 days after transfer was negative.

CONCLUSIONS: Hematuria and urine retention as specific complication of oocyte retrieval are rare but have been reported. It may result in hemodynamic instability if not carefully management. Cystoscopy should be performed in patients with aforementioned symptoms.

KEY WORDS: IVF , complication , hematuria

PP-113

COMPLICATIONS

LAPAROSCOPIC SURGERY FOR A CASE OF UTERINE PERFORATION DURING DILATATION AND CURETTAGE

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OBJECTIVE: Cervical dilatation and uterine curettage rarely causes uterine perforation, which requires medical intervention. We report a case of uterine perforation after dilatation and curettage which required the laparoscopic surgical intervention.

METHODS: A 30-year-old gravia 3, para 3, was admitted to our institution with a diagnosis of uterine perforation at dilatation and curettage in a clinic. She was at 9 weeks of pregnancy and just had undergone an elective abortion. According to the medical doctor who performed the dilatation and curettage, the small intestine was held during the procedure. On admission, the patient had slight vaginal bleeding and but was hemodynamically stable. Transvaginal ultrasound revealed a gestational sac and 19mm fetus with positive heart beat in the uterus. CT revealed the free air in the anterior uterine wall where the site of perforation was being suspected. In addition there were findings of free air in the peritoneal cavity which revealed pneumoperitoneum.

RESULTS: On the third day after the admission magnetic resonance imaging (MRI) was used in evaluation of uterine perforation. There was difficulty in detecting the site of perforation however MRI revealed the slightly thin uterine wall part which was suspected to be the site of perforation. As the physical condition of the patient had been stable since the day of admission, the patient had been under the antibiotic treatment without any surgical operation until the admission day of 6. On the ninth day after the admission laparoscopic surgery was performed to remove the fetus and to repair the perforation site of uterus. Under the laparoscopic surgery setting, dilatation and curettage was performed, and the perforation site was sutured without any complication.

CONCLUSIONS: The laparoscopic approach is a safe technique and offers excellent results and advantages regarding its treatment.

KEY WORDS: dilatation and curettage , uterine perforation , laparoscopic sutur

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COMPLICATIONS

A CASE OF LATE ONSET OF BLADDER RUPTURE AFTER TOTAL LAPAROSCOPIC HYSTERECTOMY IN THREE YEARS AND SEVEN MONTHS

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OBJECTIVE: Bladder perforation is one of the complications of hysterectomy, commonly diagnosed at perioperative period. We experienced the case in the three years and seven months after total laparoscopic hysterectomy (TLH) and hereby report it.

METHODS: The patient was 50-year-old, para 2 woman. She had history of abdominal myomectomy in other hospital at the age of 28-year-old, and TLH in our hospital at 46-year-old. After 3 years and 7 months later since TLH, she was transferred to our hospital complaining of acute abdominal pain. The findings of gynecological examination revealed a tenderness around left adnexa, and transvaginal sonography and CT scan revealed 4cm of polycystic lesion and ascites in pelvis. Therefore, we suspected torsion or rupture of ovarian cyst, and performed laparoscopic operation. Its findings were as below. There was yellow transparent ascites and fistula on dome of bladder, from which the tip of bladder catheter was prolapsed. Left ovary was enlarged, however, not twisted, nor ruptured. We performed laparoscopic left salpingo-oophorectomy, afterward, urologists repaired bladder fistula by open surgery.

RESULTS: We reviewed the video of TLH. A prominent uterine fibroid, 9cm in diameter, was adhered to bladder. After the bladder was separated, hemostasis was conducted at the point by electrocoagulation with monopolar. It was considered that damage to the bladder wall by dissection and thermal denaturation was a factor of the late onset bladder rupture.

CONCLUSIONS: Dissection of adhesion and the electrocoagulation of the bladder could be a risk of the late onset bladder rupture after a long period.

KEY WORDS: laparoscopic hysterectomy , complication , bladder ruptur

PP-115

COMPLICATIONS

THE INCIDENCE OF VAULT HAEMATOMA AFTER PELVIC RECONSTRUCTIVE SURGERY

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OBJECTIVE: The incidence of vault hematoma after vaginal hysterectomies varies according to different definitions of vault hematoma and diagnostic modalities by ultrasound. It was previously shown that vaginal ultrasound examination should not be performed routinely after hysterectomy; however the incidence of vault haematoma after various types of pelvic surgery is not well established. No study has been done in our tertiary hospital to assess the incidence of vault haematoma after pelvic surgery its relation to post-operative co-morbidity. The aim of our study was to find out the incidence of ultrasound detection of vault haematoma after pelvic floor surgery and to establish any association of vault haematoma with post-operative co-morbidity following pelvic floor surgery

METHODS: A prospective observational cross sectional study of postmenopausal women undergoing pelvic surgery at a tertiary hospital in Singapore was carried out. Pelvic floor surgery performed was led by the same surgical team under supervision of one consultant urogynaecologist. Surgical technique for vaginal hysterectomy and colporrhaphy was standardized. Intra-operative details including duration, blood loss, units of blood transfused were recorded for every patient. Post operatively, patients were assessed for complications such as febrile morbidity, drop in haemoglobin, need for blood transfusions; length of stay in hospital; failed trial off catheter and urinary tract infections.All women had trans-vaginal ultrasound examination by an independent observer on the third post-operative day. Statistical analysis of patients with and without vault haematoma was compared using chi-square test and the Mann-Whitney U test was performed with SPSS V 16.0.

RESULTS: A retrospective review of 107 patients was carried out. The mean age was 62 years old. 36(33.6%) had post-operative vault haematoma and 71 (66.7 %) did not have any vault haematoma. 25/36 (69.4%) of haematomas were < 5 cm and 11/36 (30.6%) were > 5 cm.Patients with vault haematoma have a higher mean operating duration time of 98.3 minutes compared with those without vault haematoma 88.7 minutes(P =0.03) and a statistically significant 2.1 unit drop in post-operative haemglobin compared with a 1.3 unit drop in patients without vault haematoma (P=0.02). There was no statistical difference for post-operative complications such as, fever, urinary tract infections, blood loss, number of blood transfusions, successful trial off catheter and duration of hospital stay.

CONCLUSIONS: The incidence of post-operative vault haematoma in our local hospital is 34 % which was hitherto not been studied before. 69.4% of haematoma were classified as small < 5 cm and 30.6% were large > 5 cm. Post-operative vault haematoma is associated with ahigher mean operating duration time and drop in haemoglobin compared to those without vault haematoma.Patients with post-operative vault haematoma should be followed up with repeat full blood count after treatment with iron replacement. Further studies should be performed to assess whether patients with vault haematoma respond to conservative treatment with repeated ultrasound scans on follow up.

KEY WORDS: haematoma , pelvic , reconstructive

PP-116

COMPLICATIONS

LAPAROSCOPIC MANAGEMENT IN A CASE OF COMPLICATED TUBO-OVARIAN ABSCESS AFTER LAPAROTOMY DRAINAGE

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OBJECTIVE: Surgery is considered after 48-72 hours of antibiotics in TOA without clinical improving. Laparotomy is the mainly surgical route for management of TOA for most surgeons. However, some data reported that laparoscopic approach decreases hospital stay, has lower percentages of wound infections, and decreases infertility. To report the feasibility of laparoscopic modality in dealing with complicated tubo-ovarian abscess(TOA) with severe adhesions, and peritonitis.

METHODS: A case report in a tertiary medical center

RESULTS: The 36-year-old woman, G2P2(vaginal delivery), presented with fever and lower abdominal pain. Sonography revealed bilateral adnexal masses. First, she was treated with removal of intra-uterine device, and fractional D&C. Moreover, she was planned to receive laparoscopic surgery because the symptoms didn't improve. However, the surgery was converted to laparotomy due to severe pelvic adhesion. After the drainage, persistent marked leukocytosis was still noted. Secondary wound infection of previous Pfannenstiel incision was also appeared. Thus, she was referred to our hospital. After 3 days of intravenous antibiotics, further surgical management was advised due to no remarkable improvement of clinical s/s. This time, we adopted laparoscopy. Laparoscopic bilateral salpingectomy, adhesion lysis, appendectomy, and wound debridement were conduct smoothly. After copious normal saline irrigation, Adept® was infused into peritoneal cavity. One JP drain was left in pelvic cavity.

CONCLUSIONS: Wound culture revealed B. fragilis susceptible to metronidazole. She recovered rapidly after laparoscopic surgery. She was discharged on post operation day 7. On 6 weeks' follow up, complete resolution of abscess and symptoms were noted. We conclude that laparoscopic modality by experienced surgeons in dealing with TOA is feasible and a good alternative to laparotomy. Laparoscopy provides magnification, and better visual fields to detect subtle lesions. We also noted that adhesion prevention barrier was plausible in the premise of copious irrigation. We advocate laparoscopic approach in management of tubo-ovarian abscess by experienced laparoscopic surgeons.

KEY WORDS: Tubo-ovarian abscess , laparoscopy

PP-117

COMPLICATIONS

PARASITIC FIBROIDS - A RARE BUT IMPORTANT COMPLICATION OF LAPAROSCOPIC MORCELLATION

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OBJECTIVE: A 42 year-old Para 2 Chinese woman, presented to our centre,with recurrent fibroids. She had undergone a laparoscopic myomectomy 7 years earlier in our centre for an 8cm uterine fibroid. A year after this surgery, she conceived

her second child, and underwent a successful normal vaginal delivery. She was noted to have an abdominal mass during a routine screening smear. Pelvic ultrasound showed 3 fibroids of sizes 9cm, 6cm and 4cm. Review of previous operative notes revealed that our patient previously had an 8cm posterior uterine wall fibroid. This fibroid specimen had been retrieved piecemeal through the umbilical port after power morcellation, as per standard practice during laparoscopic myomectomy. The myometrium closed with interlocking sutures, and an adhesion barrier (Interceed®)was applied. Postoperative recovery was uneventful. Histology of this specimen revealed a benign leiomyoma with patchy haemorrhage, hyalinization and infarction.

METHODS: Our patient was counseled on her options, and was keen for open surgery whilst retaining her uterus. The surgery was performed through a midline incision for improved exposure and in anticipation of adhesions from the previous surgery. Intra-operatively, our team found 3 intramural uterine fundal fibroids of 2 x 2cm each. In addition to this, we discovered multiple extra-uterine nodules with fibroid appearances. The largest of these was a 9 x 10cm independent mesenteric fibroid. We also found a 7 x 7cm fibroid invading into the rectosigmoid mesentery, a 5 x 6cm anterior abdominal wall fibroid, a 4 x 4cm left round ligament fibroid and a 4 x 5cm right infundibulopelvic ligament fibroid. No enlarged lymph nodes were seen. Apart from a small right ovarian cyst, the rest of the peritoneal survey was normal. Thus lymph node dissection and further oncological sampling was avoided.

RESULTS: A total of eight myomectomies were performed, with each fibroid removed as a single piece in its entirety. Colorectal surgery expertise was employed for excision of the rectosigmoid nodule, which proceeded with sharp dissection of the fibroid along surgical planes of the bowel. There was no major morbidity following the surgery and our patient made an uneventful recovery. Final histology confirmed the specimens to be benign leiomyomas, without any features of leimyosarcoma or gastrointestinal stromal tumours. She remained well at her follow-up one year post-operatively

CONCLUSIONS: Minimally invasive surgery remains a treatment of choice for most women despite emerging concerns over morcellation-related complications. Increasing awareness of these complications should translate to more meticulous surgery and development of more effective surgical equipment aimed at preventing fragments from being disseminated and left behind following morcellation. Iatrogenic parasitic fibroids, albeit a rare complication, should be considered as a differential diagnosis in patients presenting with multiple pelvic masses and a history of previous mechanical morcellator use. As such, patients should be informed in depth of these potential long-term complications and their complications as part of routine pre-operative counseling for laparoscopic myomectomies.

KEY WORDS: parasitic , fibroids , morcellation

PP-118

COMPLICATIONS

POWER MORCELLATOR RELATED PARASITIC MYOMA COMPLICATED WITH TWO DIFFERENT TIMES OF RECURRENCE AND BOWEL INJURY AFTER PARASITIC MYOMECTOMY: A RARE AND TRAGIC CASE REPORT AND LITERATURES REVIEW

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OBJECTIVE: To present a rare case of parasitic myoma after power morcellator use in laparoscopic subtotal hysterectomy complicated with two times of recurrence and bowels injuries after parasitic myomectomy.

METHODS: The clinical presentation, courses and pathology of the case were thoroughly reviewed. The sex hormone receptors (including the isoforms ERα, ERβ, PRA, PRB) and the related biomarkers of the parasitic myomas were evaluated by Immunohistochemistry (IHC) and compare to the normal myomas. The risk factor, clinical characteristics, the appearance, location of the parasitic myomas and the managements were also analysed. The related topics in the literatures was reviewed.

RESULTS: This 46 years old house keeper, nulliparous women received laparoscopic subtotal hysterectomy due to myomas with lower abdominal pain on May, 2013. The family history, working environment and diet habit of the patient are not remarkable. The menstrual cycle of the patient was normal. After surgery, the pathology report revealed leiomyoma with focal hyaline degeneration. During the following two years, she experienced three times of recurrence of parasitic myomas complicated with two times of bowel injuries due to parasitic myoma had dense adhesion to the bowel. In-bag manual morcellation was used in every time of parasitic myomectomy, and antiprogesterone receptor--ullipristal acetate (Esyma) was prescribed for 3 months but in vain. The interval of each recurrence was shorter and shorter. Lower abdominal pain and prominent vessels on the myoma were the two distinct characteristic different from general myoma. Finally, we performed parasitic myomectomy and bilateral oophorectomy.

CONCLUSIONS: This report highlights the importance of specimen removal by 'contain before morcellation' in gynecology surgery not only to prevent occult malignant cell dissemination but also for the non-malignant tragic disorders. For special case of parasitic myoma, even 'contain before morcellation' is not enough, oophorectomy and avoidance of hormones replacement therapy shall be considered at the first time of recurrence.

KEY WORDS: contain before morcellation , specimen removal , parasitic myoma

PP-119

COMPLICATIONS

ABDOMINAL INSICIONAL HERNIA IN EXTRAPERITONEAL PARA-AORTIC LYMPHADENECTOMY

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OBJECTIVE: To report our abdominal incisional hernia with initial extraperitoneal para-aortic lymphadenectomy at a single center.

METHODS: Study design: Retrospective, nonrandomized clinical study. Setting: Department of obstetrics and gynecology at a general hospital. Patients: Women undergoing initial extraperitoneal para-aortic lymphadenectomy for endometrial carcinoma from 2013 to 2016 Interventions: A total of 28 women underwent extraperitoneal para-aortic lymphadenectomy. All surgeries were performed by two advanced gynecologic laparoscopists. Incisions were repaired with a running, delayed absorbable suture. Subject demographics and clinical variables were collected and surgical outcomes analyzed.

RESULTS: Abdominal incisional hernia occurred in 3 women (10.7 %). All cases occurred within postoperative a week and were repaired primarily with laparoscopic intra-abdominal sutures and regular interrupted absorbable sutures. The fascia remained sutured, and the peritoneum and posterior rectus sheath separate, leaving a space above the peritoneum into which the bowel might herniate through trocar port incisio

CONCLUSIONS: Abdominal incisional hernia with extraperitoneal para-aortic lymphadenectomy could be repaired without the need for a laparotomy. Although these complications resulted from our initial experiences, we report them occurring uniquely in this operative method. When limiting the intraperitoneal operation, we should only pay attention to fascial closure to avoid the incisional hernia. However, we should confirm the space above the peritoneum caused by extraperitoneal operation and avoid this complication. We consider the excess dissection of peritoneum and trocar port incision of peritoneum result in these atypical abdominal incisional hernia.

KEY WORDS: Complication; extraperitoneal para-aortic lymphadenectomy; incisional hernia

PP-120

COMPLICATIONS

ACUTE SMALL BOWEL OBSTRUCTION CAUSED BY BARBED SUTURE AFTER LAPAROSCOPIC HYSTEROSACROPEXY

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OBJECTIVE: To report a case of small bowel obstruction caused by the barbed suture applied in hysterosacropexy, and possible solutions.

METHODS: We reported one case and reviewed 7 case reports.

RESULTS: A 57-year-old woman underwent laparoscopic hysterosacropexy for a stage 2 uterine prolapse, presenting with acute abdominal pain and a bowel obstruction syndrome 2 days following the surgery. Conservative treatment was given, but the symptoms did not relieve, and became gradually worse. Diagnostic laparoscopy was performed on the 7th day after the hysterosacropexy, and the volvulus was found. The residual end of the barbed V-Loc adopted in peritoneal closure was incidentally hooked to the mesentery, and caused small bowel obstruction. The redundant V-Loc was released and cut off at 2cm. Neither bowel ischemia nor significant bowel injury was noted. Two days later, she was discharged without complication.

CONCLUSIONS: A barbed suture has a risk of bowel obstruction when utilized in surgery. To avoid a grave prognosis, early diagnosis and prompt management of complication is necessary. We suggested cut barbed suture just parallel to the surface of surgical site.

KEY WORDS: Hysterosacropexy , barbed suture , intestinal obstruction

PP-121

COMPLICATIONS

VULVAR EDEMA AFTER ADEPT INSTILLATION DURING LAPAROSCOPIC SURGERY REDUCED BY DRAINAGE - INITIAL STUDY

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OBJECTIVE: Severe vulvar edema after laparoscopic surgery with instillation of adhesion-prevention solution (4% icodextrin) is a rare complication, but account for about 6% incidence in these patients and trouble them with massive vulvar swelling, pain, and anxiety thus need to be readmitted. The pathogenesis of this side effect is unknown, but possible leakage tracts from intra-abdominal cavity to vulvar adipose tissue includes the broad ligament opens during surgery, a patent canal of Nuck and a way by the suprapubic port side. We wonder if putting a drainage when completing the surgery can decrease the incidence of vulvar edema, so execute this preliminary study.

METHODS: The primary study outcome measurement is the incidence of vulvar edema. We have collect the previous data about the incidence of vulvar edema after laparoscopic surgery with Adept instillation registered during last 2 years without placed a drainage, totally 48 patients. Then we collect also recently 9 cases that inserted a drainage.

RESULTS: Within 48 cases without drainage, total 3 cases developed vulvar edema, the incidence is 6.25%; on the contrary, all the patients with drainage insertion did not occur vulvar edema.

CONCLUSIONS: With increasing uptake of minimal access surgery, rare complications of laparoscopy are becoming more apparent. There may be a perceived increase in hydro-floatation solution administration during laparoscopy to bring adhesion formation to a minimum. Drainage placement may be a proper method to reduce the vulvar edema side effect after laparoscopic surgery but need more advanced study.

KEY WORDS: Vulvar edema , laparoscopic surgery , drainage

PP-122

COMPLICATIONS

THE POSITION AND SUCTION POWER OF THE PELVIC DRAIN: A KEYPOINT OF SUCCESS AFTER SECONDARY SURGICAL REPAIR FOR URINARY TRACT INJURY COMPLICATING LAPAROSCOPIC HYSTERECTOMY

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OBJECTIVE: Pelvic drains and foley catheters are widely used in the patients that undergo secondary surgical repair for urological complications after laparoscopic hysterectomy. However, persistent discharge from the drain tube, an implication of leakage at the site of repair due to the presence of urinary ascites, is a common reason why physicians do not dare to remove the drain tube and foley catheter.

METHODS: We report on two cases, where patients presented with urinary ascites after secondary surgery. It was supposed that a close position of the JP drain tube to the site of repair, as well as excessive suction power of the bulb, may be the primary cause of the persistent discharge, as these would produce a higher negative pressure, and thereby create a "fistula" effect. Our strategies for correcting these problems were that the tube was pulled out by 5-10 cm and that the compression of the suction bulb was decreased by 50-75%.

RESULTS: An attempt of moving the drain tube away from the site of repair and decreasing its suction power by reducing the compression of the bulb was made and appeared to be helpful. In both patients, the daily amount of drainage began to decrease, and subsequently there was no drainage at all. The results of IVP and cystogram arranged for confirmation revealed intact urinary tracts. The patients were discharged after the removal of the JP drain and foley catheter, and they did not present with any sequelae at the follow-up appointment.

CONCLUSIONS: We suggest that this cause should be considered and managed in the patients who fail to have drain removed because of persistent discharge, except the condition of true leakage from the site of repair. The strategies of adjusting the position and suction power of pelvic drains may be helpful.

KEY WORDS: laparoscopic hysterectomy , urinary tract injury , pelvic drain

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OTHERS

THE EFFICACY OF PROPHYLAXIS FOR POSTOPERATIVE NAUSEA AND VOMITING IN PATIENT WHO RECEIVED GYNECOLOGIC LAPAROSCOPIC SURGERY: USING RETROSPECTIVE REGISTER STUDY

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OBJECTIVE: To evaluate the efficacy of prophylactic therapy for postoperative nausea and vomiting(PONV) in high risk gynecologic patients

METHODS: According to the consensus guideline for managing PONV, prophylactic therapy was more effective than rescue therapy. Suggested regimen for prophylaxis were 1) Dexamethasone and 5HT3-antagonist/droperidol 2) 5HT3 antagonist and droperidol 3) Dexamethasone, 5HT3-antagonist and droperidol. Considering the medication in our hospital. We choose dexamethasone and 5HT3-antagonist(granisetron) as our prophylactic regimen.

RESULTS: The incidence of postoperative nausea and vomiting(PONV) decreased after using prophylactic therapy.

CONCLUSIONS: Prophylactic therapy had benefit on preventing PONV, especially high risk gynecologic patient who received elective laparoscopy

KEY WORDS: postoperative nausea and vomiting (PONV), laparoscopy, gynecology

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OTHERS

REASONS WHY CONVENTIONAL LAPAROTOMY GYNAECOLOGICAL SURGEONS HAVE A LOW UPTAKE IN ADVANCED GYNAECOLOGICAL LAPAROSCOPIC SURGERIES

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OBJECTIVE: To rationalize why uptake of advanced laparoscopic gynaecological surgeries are low among conventional open gynaecology surgeons. We will review the difficulties faced by conventional laparotomy surgeons in 1st 100 cases of advanced gynaecological laparoscopic procedures performed in Penang General Hospital, Malaysia and how to overcome the problem arising intra-operatively. With me myself, who came from a strong background of laparotomy surgeries and subsequently underwent advanced endoscopic training, increase the probability of identification of differences in approaches between laparotomy and laparoscopy for specific advanced laparoscopic gynaecological procedures.

METHODS: Case review of difficulties encountered during initiation of 1st 100 cases of Advanced Gynaecological Laparoscopic surgery performed in Penang General Hospital. Common mistakes make by conventional laparotomy surgeons

will be reviewed in detail so that the approach could be more simplified and its uptake could be increased among gynaecological generalists. Minor and major problems will be discussed in this presentation and expert opinions from local and foreign advanced laparoscopic surgeons will be highlighted, with the aim to overcome the difficulties faced in during the initial phase for optimizations of the outcome of advanced laparoscopic surgeries while minimized the probability of operative complications, failure rate and lastly, conversion rate.

RESULTS: Laparoscopic approach is different from conventional open surgery. First, it is a clampless surgery where three surgeons must interface among each other. First assistant will provide traction, whereas the vagina assistant will provide the counter-traction so that the surgeon will have a stretched surgical plane to dissect and coagulate. Conventional laparoscopy only provides monocular 2-dimension view where hand-eye coordination is outermost the importance, they will be loss of tactile sensation via surgeon's finger to be compensated by visual tactile sensation. Knowledge of anatomy of frozen pelvis is extremely important in severe endometriosis cases in knowing which anatomical structures are preserved . Knowledge of pelvic spaces will enable surgery to be done. Usage of modern energy sources provide effective cutting and haemostasis limiting thermal injury to surrounding viscera. Tissue retrieval could be the most frustrating part of laparoscopic surgery.

CONCLUSIONS: Multidisciplinary team effort is needed in term of all assistants and anaesthetists as well as operation room nurses is vital to maintain an effective laparoscopic team. For surgeons, experiences come with complications. Detection of complications is vital to minimize morbidity for the patients while create an invaluable experience in the learning curve of advanced laparoscopic procedures.

KEY WORDS: Laparotomy Surgeons , Advanced Gynaecological Laparoscopy Surgery

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OTHERS

HOW TO DEAL WITH THE HAZARDOUS SURGICAL SMOKE CONSTANTLY INHALED IN THE OPERATING THEATER

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OBJECTIVE: Surgical smoke in the operating theater ontains potentially hazardous material, substances,including dead and living cellular material, blood fragments,bacteria,viruses,toxic gases and vapors such as carbon onoxide,benzene,toluene,acrylonitrile,methylene,acetaldehyde and lung-damaging particulates. These may influence the health of the people working in the operating theater. However most of the gynecologists are unaware of these potential hazards. Our purpose is trying to reduce the concentration of the surgical smoke and to provide a clean operating room for working.

METHODS: Our study is to use Surgical Evacuation System to reduce the concentration of the hazardous surgical smoke. Through the filter, we check the surgical smokes.

RESULTS: With the combination of general room ventilation and local exhaust ventilation the concentration of surgical smoke is quite reduced.

CONCLUSIONS: The best precaution for management of surgical smoke is smoke evacuation system. On the other hand, education of the people working inside the operating theater also plays an important role.

KEY WORDS: Surgical smoke , Smoke evacuation systems , Local exhaust ventilation

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OTHERS

SURGICAL SMOKE/HEAT EVACUATION (SSHE) SYSTEM FOR THE ROBOTIC SINGLE-SITE SURGERIES: A SIMPLE, SAFE AND EFFECTIVE COMBINED SYSTEM FROM UBIQUITOUS SURGICAL DEVICES

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OBJECTIVE: To propose a surgical smoke/heat evacuation (SSHE) system which was a combination from easily gain surgical devices and use in robotic single-site myomectomy or subtotal hysterectomy.

METHODS: The five components of the SSHE system included:1. Veress needle (VN) 14-gauge, 15cm length (COVIDIEN); 2.Three way (Discofix, B BRAUN, Meisungen, Germany);3.Home make penetration depth controller (PDC);4.Suction tube, as needed in length;5.Medical aspirator pump. The VN insertion position was designed at the mid lower abdomen so that the tip can be seen easily by the surgeon and the assistant can easily control the system. The thickness of abdominal wall (T) was measured by transabdominal sonography prior to the surgery. The depth of insertion was suggested to be T+1.5 cm. The home make PDC was used to fix the depth of NV so that VN will not go too deep. The surgical time and complication were compare with and without SSHE; the opinion of surgeon and team member of the surgical team on the SSHE were interviewed.

RESULTS: Few cases of single-site robotic surgeries were performed using SSHE system including robotic single-site (RSS) myomectomy and RSS subtotal hysterectomy. The setting time of SSHE was about two minutes. The SSHE system could effectively

remove the smoke during surgery and fasten the surgery. With a better operative view the safety of the surgery was basically assured; the surgical time was about 30 minutes shorter than those without using SSHE. No trouble was noted during these single-site robotic surgeries. The surgeon's and team members' opinion on this system were very positive: 'very convenient', 'grateful for good operative view', 'effectively work!', 'thanks a lot for no stinking and choking smoke in operation'. No patient aware or complaint about the additional 2 mm NV penetration wound at the lower abdomen.

CONCLUSIONS: This proposed surgical smoke/heat evacuation system is a simple, safe and effective system that can reduce the smoke hazard in operation room, improve surgical time, safety, and make the process of the RSS surgery smooth.

KEY WORDS: Surgical smoke , Robotic single-site surgery , Surgical smoke/heat evacuation system

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OTHERS

EFFECTS OF DEPRESSION AND ANTIDEPRESSANT MEDICATIONS ON HIP FRACTURE: A POPULATION BASED COHORT STUDY IN TAIWAN

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OBJECTIVE: This study was conducted to investigate the effects of depression and antidepressant medications on hip fracture.

METHODS: The database of the Taiwan National Health Insurance with medical records of more than 1,000,000 individuals was searched for patients who had hip fracture with or without depression from 1998 to 2009. Patients with the following conditions were excluded: hip fracture due to cancer or traffic accidents, hip fracture that occurred before the diagnosis of depression, and use of antidepressants before the diagnosis of depression. A matched cohort of 139,110 patients was investigated, including 27,822 (17,309 females; 10,513 males) with depression and 111,288 (69,236 females; 42,052 males) without depression (1:4 randomly matched with age, sex, and index date). Among these patients, 232 (158 females and 74 males) had both hip fracture and depression and 690 (473 females and 217 males) had hip fracture only. The Cox proportional hazards regression method was used.

RESULTS: Results showed that patients with major depressive disorder (MDD) had a 61% higher incidence of hip fracture than those without depression (HR=1.61, 95% CI = 1.19-2.18, p=0.002). The risk of hip fracture for patients with less severe depressive disorder (dysthymia or depressive disorder, not otherwise specified) was not statistically higher than that of patients with no depression (HR=1.10, 95% CI = 0.91-1.34, p=0.327). Among the patients with depression, females had a 49% higher incidence for hip fracture than males (HR=1.49, 95% CI = 1.30-1.72, p<0.001). The incidence of hip fracture also increased with age and CCI scores. Antidepressants were found to have no negative impact on the incidence of hip fracture.

CONCLUSIONS: In conclusion, major depression was found to be a risk factor for hip fracture and that use of antidepressants had no adverse effect on hip fracture in the Taiwanese population.

KEY WORDS: depression, menopaus , hip fracture

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OTHERS

GENETIC DEFECT OF A COMBINED 17 α-HYDROXYLASE/17, 20-LYASE DEFICIENCY PATIENT WITH ADRENAL CRISIS

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OBJECTIVE: To identify the genetic defect in a combined 17 α-hydroxylase/17, 20-lyase deficiency (17OHD) patient with rare adrenal crisis in the perioperative period.

METHODS: Blood from family members was used to sequence 219 candidate genes by targeted sequence capture/high-throughput sequencing technology. PCR and Sanger sequencing technology validated CYP17A1 as the causative gene.Samples were obtained from a 46XY patient with primary amenorrhea, hypertension and hypokalaemia, without secondary sexual characteristics, who was clinically diagnosed as being in adrenal crisis after gonadectomy. The resected specimen was hypoplastic testicular tissue.

RESULTS: Eleven heterozygous mutations and one homozygous (CYP17A1) mutation were observed by high-throughput sequencing. Sanger sequencing confirmed homozygous mutation c.715C>T (p.Arg239-stop) in exon 4 of CYP17A1.

CONCLUSIONS: The genetic defect was confirmed as a c.715C>T (p.Arg239-stop) homozygous mutation in exon 4 of CYP17A1, which was inherited from the patient's heterozygous parents. It is currently unknown whether there is any relationship between the adrenal crisis and this homozygous mutation. Inadequate perioperative glucocorticoids administration might have induced the adrenal crisis.

KEY WORDS: 17OHD , gene mutation , adrenal crisis

PP-129

LATEST SUBMISSION

METASTASIS OF UTERINE LEIOMYOSARCOMA BENEATH A LAPAROTOMY SCAR AFTER LAPAROTOMY HYSTERECTOMY

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OBJECTIVE: To draw attention to the possible development of recurrent uterine leiomyosarcoma beneath a laparotomy scar after laparotomy hysterectomy

METHODS: A detailed review of the patient's clinical course, including the pre-operative evaluation and assessment, operation, and post-operative management and follow-up.

RESULTS: This is a 46-year-old female patient, without sexual experience, who presented to the outpatient department on September 11th, 2014, owing to persistent vaginal bleeding for more than one month. Initial transabdominal ultrasonography and hysteroscopy revealed a submucosal myoma, so a hysteroscopic myomectomy was performed. However, the pathology report yielded a smooth muscle tumor of uncertain malignant potential, so a subsequent hysteroscopic myomectomy was undertaken to remove the tumor nine months later. The final diagnosis disclosed leiomyosarcoma. Therefore, the patient underwent laparotomy abdominal total hysterectomy, bilateral salpingectomy, bilateral pelvic lymph node dissection, adhesiolysis, and washing cytology; as well as six courses of adjuvant chemotherapy. Seven months after the laparotomy, a follow-up evaluation of the patient by abdominal computed tomography (CT) suggested tumor recurrence at the laparotomy incision site.

CONCLUSIONS: Recurrences develop in more than half of the cases of uterine leiomyosarcoma. The most common sites of recurrence are the pelvis, lungs and liver. In contrast, metastasis in the abdominal wall incision line has seldom been described. A possible explanation is the direct tumor seeding in the laparotomy scar due to cell spillage during manipulation at the time of the surgery. The development of recurrent uterine leiomyosarcoma beneath a laparotomy scar after laparotomy hysterectomy suggests that laparoscopy is not the sole propagator of distant site metastasis, and that six courses of postoperative adjuvant chemotherapy alone is not effective enough to prevent recurrence. Caution should be exercised to prevent laparotomy wound metastasis.

KEY WORDS: Uterine leiomyosarcoma, recurrence, laparotomy

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LATEST SUBMISSION

TRANSVAGINAL ENDOSCOPIC SURGERY-ASSISTED VERSUS CONVENTIONAL LAPAROSCOPIC ADNEXECTOMY (TVEA VS. CLA): A PROPENSITY-MATCHED STUDY AND LITERATURE REVIEW

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OBJECTIVE: Natural orifice transluminal endoscopic surgery (NOTES) may be useful in gynecologic endoscopic surgery. This study evaluated the efficacy, safety, and perioperative outcomes of combined NOTES and vaginal approach, transvaginal endoscopic surgery-assisted adnexectomy (TVEA), for the surgical treatment of presumed benign ovarian tumors.

MATERIALS AND METHODS: Records were reviewed for 33 consecutive TVEA procedures performed between May 2011 and March 2014. Patient age, body mass index, parity, mass size, and mass bilaterality were used to select comparable patients who had undergone conventional laparoscopic adnexectomy (CLA).

RESULTS: A total of 236 patients were included in this study (203 CLAs and 33 TVEAs). No cases switched to abdominal laparotomy. Operating time and length of postoperative stay were significantly longer in the CLA group than in the TVEA group, while total hospital charges were higher in the TVEA group ($p < 0.001$). There was no difference in febrile morbidity between the two groups; while the estimated blood loss was higher in the TVEA group, the EBL was <30 mL in both groups.

CONCLUSION: TVEA can be safely performed for benign and large ovarian tumors. In addition, TVEA offers superior operative efficiency compared to CLA.

KEY WORDS: Laparoscopy; adnexectomy; natural orifice transluminal endoscopic surgery; ovary; vaginal.

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LATEST SUBMISSION

LAPAROSCOPIC MYOMECTOMY IN LARGE MYOMA UTERI BY USING LEE-HUANG POINT AS THE ABDOMEN SAFE ENTRY

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OBJECTIVE: To present a case of laparoscopic myomectomy in large myoma uteri used Lee-Huang point as a safe entry for camera primary trochar

METHODS: Case Report

RESULTS: The patient was 45 years old (Parity 3) and complained of mennorhagia and abdominal enlargement since 8 months. Patient did not want to do hysterectomy and preferred to do myomectomy. Abdominal examination obtained the uterus as high as umbilicus, mobile, with diameter 15 cm. The result of uterus and MRI obtained uterus anteflex size 8.4 x 6,.6 x 4.8 cm with uterus corpus posterior mass size 15.4 x 15.4 cm suspect seromural myoma uteri. During operation trochar main insertion placed on the Lee-Huang Point which lies half between umbilicus and processus xyphoideus. We used 0^0 camera. During operation obtained myoma uteri subserous size 15cm, did not obtained adhesion on myoma mass and performed vasoconstrictor injection to reduce the bleding risk, then performed longitudinal incision and the myoma was totally enucleated without disturbing endometrial cavity. The myometrial defect was repaired with a continuous suture using the V-loc sutures in two layers. The entire myoma was removed with morcellator. Total weight of myoma removal was 3006 gram and the operation lasted for 160 minutes. Pathology anatomy result was fit with leiomyoma.

CONCLUSIONS: One of the difficulties in large laparoscopy myomectomy was difficulty camera viewpoint and narrower workspace. With this situation there is increasing risk for organ injury, hemmorhage and longer operation time. By using Lee-Huang point as the camera entrance so obtained broader camera

viewpoint and broader workspace.

KEY WORDS: Laparoscopic Myomectomy, Lee-Huang Point

PP-132

LATEST SUBMISSION

MYOMECTOMY OF HUGE UTERINE FIBROID WITHOUT UTERINE MANIPULATOR: A CASE REPORT

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OBJECTIVE: Exposure is major issue in performing myomectomy. Uterine manipulator was one device created to achieve exposure. In this case report, achieving exposure was challenging because uterine manipulator could not be applied. We reported myomectomy of uterine fibroid sized two fingers above navel without uterine manipulator.

METHODS: Case report

RESULTS: A 17 - years - old girl came with mass in her abdomen that had been expanding since 4 years before admission. She ignore it because felt no tenderness and no symptoms of compression. Her growth, development, and menstrual history were unremarkable. There was solid mass in abdomen fulfilled her pelvic cavity until two fingers above navel with limited mobility. Ultrasound examination found enlarged uterus with clear bordered mass sized 20 x 15 x 14 cm, corresponded to intramural uterine fibroid. Endometrial line was firm. Because she never had sexual intercourse, she consented to perform laparoscopic myomectomy but refused vaginal manipulation.
Laparoscopy was performed with telescope 0° not 30° (due to unavailability). Primary trochar was inserted in the Lee - Huang Point. We visualized an enlarged uterus with limited lateral visualization. Vasopressin was administered. We performed myomectomy but could not continue as found difficulty of exposing lateral part using telescope 0°. We decided performing morcellation while its base was still attached to uterus. After partially morcellated, we had better exposure and continued myomectomy excision. Bleeding was 200 cc. Pathology result confirmed uterine leiomyoma.

CONCLUSIONS: This case presented myomectomy in limited resources when we could not either use uterine manipulator or use telescope 30°. We performed morcellation when the fibroid was partially attached to the uterine so we could maintain good visual exposure. This could be new trick when facing such case.

KEY WORDS: fibroid, myomectomy, manipulator, morcellation

PP-133

LATEST SUBMISSION

SITE-SPECIFIC ENDOMETRIAL INJURY IMPROVES IMPLANTATION AND PREGNANCY IN PATIENTS WITH REPEATED IMPLANTATION FAILURES

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OBJECTIVE: To test whether a site-specific hysteroscopic biopsy-induced injury in the endometrium during the controlled ovarian hyperstimulation cycle improves subsequent embryo implantation in patients with repeated implantation failure, a total of 30 patients who have had good responses to controlled ovulation stimulation but have failed to achieve pregnancy after two or more transfers of good-quality embryos were recruited in this prospective study.

METHODS: A single, site-specific hysteroscopic biopsy-induced injury was generated on the posterior endometrium at midline 10-15 mm from the fundus during the D4-D7 period of the ongoing controlled ovarian hyperstimulation cycle in six patients.

RESULTS: Patients received endometrial biopsy protocol achieved a pregnancy rate of 100%. By contrast, only 46% of patients with similar clinical characteristics (N = 24) achieved pregnancy without the hysteroscopic biopsyinduced endometrium injury ($p < 0.05$).

CONCLUSIONS: Our proof-of-concept study demonstrates that a site-specific hysteroscopic endometrium injury performed during the ongoing in vitro fertilization (IVF) cycle, instead of injuries received during prior cycles, significantly improves clinical outcomes in patients with repeated implantation failure.

KEY WORDS: hysteroscopy, endometrium biopsy, IVF, repeated implantation failure, pregnancy

PP-134

LATEST SUBMISSION

SYMPTOM SCORE CHANGE AND VOLUME REDUCTION OF UTERINE FIBROID AND ADENOMYOSIS AFTER TREATMENT WITH USGHIFU

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OBJECTIVES: To evaluate the clinical value of the ultrasound-guided high-intensity focused ultrasound (USgHIFU) ablation on uterine fibroids and adenomyosis.
METHODS: A total 12 patients with solitary uterine fibroid (n=6) or adenomyosis (n=6) at a single center were treated with USgHIFU. Symptom Severity Score (SSS) was evaluated and recorded before HIFU treatment, and 3-6 months after the treatment. Contrast enhanced MRI was performed before HIFU treatment, and 3-6 months after the treatment. Any complications after the treatment were investigated and recorded at follow up in every patient in this study.
RESULTS: The average follow up duration of SSS and contrast

enhanced MRI was 4.29 months. The average score of SSS before HIFU treatment was 62.3(range 51-92). The average score of SSS after HIFU treatment was 29.1(range 0-61). The average SSS reduction rate was 53.30%. The median volume of uterine fibroids was 456.25cm^3 (range 106.00-920.76cm^3) before HIFU treatment. The median uterine volume of adenomyosis was 254.50cm^3 (range 109.28-677.95) before HIFU treatment. The average reduction rate of uterine fibroid was 45.96%. The average reduction rate of adenomyosis was 45.96%.
No major complication was found after the HIFU treatment. The most severe complication was prolonged and severe vaginal bleeding (n=1) and vaginal discharge (n=1). The most common complication was abdominal discomfort (n=5) which was subsided naturally in 1-14 days after the treatment.
CONCLUSIONS: Based on our results, USgHIFU ablation of uterine fibroids and adenomyosis appears efficient in reducint the mass volume as well as the menstrual and pelvic symptoms. USgHIFU is also safe and usually does not occur major complications.

KEY WORDS: USgHIFU, Uterine myoma, Adenomyosis

PP-135

LATEST SUBMISSION

EFFICACY OF IMIQUIMOD CREAM ADMINISTERED INTRAPERITONEALLY FOR OVARIAN METASTASES IN COLORECTAL CANCER

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OBJECTIVE: Most existing vaccines or immunomodulatory adjuvants are administered via subcutaneous or intramuscular injection due to the consideration of drug safety. In this case report, we sought to determine the efficacy of intraperitoneal Imiquimod cream for the treatment of persistent ovarian metastases in colorectal cancer after Avastin-based chemotherapy failure. Topical Imiquimod cream is an immune response modifier, toll-like receptor 7 and /or 8 (TLR 7/8) agonist for the treatment of anogenital warts. It is also used to eliminate cervical residual intraepithelial neoplasia after conization. It could trigger skin Langerhan cells (naïve dendtritic cells) as the priming responsive cell type and initiate a strong Th1-switched anti-tumor cellular immune response. However, the therapeutic efficacy of topically applicated Aldara cream is generally limited to the treatment site. As such, the utility of topically administered TLR7 agonists may not be optimal for the treatment of non-dermatologic disease. Thus, we used intraperitoneal injection of Aldara cream to trigger innate lymphocyte immune cells such as the natural killer T cell (NKT). NKT serves as a linker between adaptive immune cells and tumor microenvironment to augment anticancer response.

CASE: This is a 50-year-old woman with rectal cancer with liver, lung, left adrenal gland and ovarian metastasis, and pelvic carcinomatosis. CEA level initially decreased from 333.04 U/mL to 282.54 U/mL after the initial optimal debulking surgery. Then after 12 cycles of chemotherapy with Fluorouracil (5-FU) + Leucovorin (LV)+ Irinotecan + Bevacizumab, her CEA level initially decreased, but later elevated to 236.48 U/mL. In fact, her CEA level still elevated to 319.98 U/mL despite changing her chemotherapy to 4 cycles of Fluorouracil (5-FU) + Oxaliplatin, and further CT scan showed progressed carcinomatosis and diffused metastasis. Surprisingly, after intraperitoneal immunomodulatory therapy (IMT) administration with intraperitoneal (IP) Interlukin-2 mix Thymoxin on Day1, and intraperitoneal Imiquimod cream (5% 250mg in normal saline 2 ml) on Day 2, the amount of drainage ascites gradually decreased, and her CEA level dropped to 74.86 U/mL after IMT.
IMT can also trigger host immunogenic potency such as an elevated CD4/CD8 ratio to 2.6 fold, elevated CD4+ T cell to 4.2 fold, enhanced CD4+HLA-DR+ T cell activation marker to 5.3 fold, and elevated CD11b+ immature dendritic cells to 2.1 fold. This result showed an increasing trend in local immunogenicity and efficient anticancer response.

CONCLUSIONS: Vaccines have many beneficial effects in combating ovarian cancer through Bevacizumab (Avastin) since its approval by the 2010 NCCN guideline. They have also proved to be effective cancer treatments by Avastin combined immunomodulatory therapy. Therefore, we combined various TLR agonists to elicit excellent anticancer therapy. Although vaccines are widely considered safe via monotherapy, we combined dual or tripartite adjuvants to augment host immunosurveillance with limited adverse effects. We have experience in handling Aldara cream in the elimination of vulval, vaginal, and cervical lesions. Imiquimod (5% cream) has been shown to be safe and effective in the treatment of genital warts caused by low-risk HPV infections. The mechanism for the eradication of genital verrucous lesions with Imiquimod may involve the induction of both innate and cellular immunity. Anti-viral activity may be stimulated through the induction of cytokines, such as interferon-alpha, tumor necrosis-alpha, and interleukins. It is known that Imiquimod activates immune cells through the toll-like receptor 7 (TLR7), commonly involved in pathogen recognition, on the cell surface. Cells activated by Imiquimod via TLR7 secrete cytokines such as IFN-alpha, IL-6 and TNF-alpha. There is evidence that Imiquimod, when applied to the skin, cervix and vaginal, can lead to the activation of naïve dendritic cells, which subsequently migrates to local lymph nodes to activate the adaptive immune system. Other cell types activated by Imiquimod include NK cells, macrophages and B-lymphocytes. In this retrospective study, we sought to determine the efficacy and toxicity of self-administered topical 5% Imiquimod cream for the treatment of persistent cancer metastatic ovarian cancer after Avastin-based chemotherapy failure.

KEY WORDS: Imiquimod Cream; Ovarian Metastases in Colorectal Cancer

PP-136

LATEST SUBMISSION

LAPAROSCOPIC RESECTION OF METASTATIC OVARIAN YOLK SAC TUMOR

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OBJECTIVE:

A case courtesy of a 39-year-old woman with yolk sac tumor who received laparoscopic surgery after metastasis of the disease was noted.

METHODS:
A 39-year-old woman with yolk sac tumor was admitted to the hospital due to refractory of the disease after initial operation of laparotomy of left salpingoopherectomy due to palpable abdominal mass and followed with chemotherapy with etoposide. Metastatic tumor was found by computer tomography on lower abdominal wall and suspected lymph nodes along left ovarian vein. Restaging operation was performed by laparoscopic surgery and salvage chemotherapy was administrated.

RESULTS:
The patient was currently under adjuvant chemotherapy and regular follow up.

CONCLUSIONS:
Current data suggest that women with recurrent disease may benefit from surgical resection, especially if the disease appears to be resectable.

KEY WORDS: Yolk sac tumor, Laparoscopic

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