# 2025 APAGE Annual Congress YAG Oral Abstract

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**Title:** ROLE OF LAPAROSCOPIC SURGERIES FOR PRESERVING OVARIAN FUNCTIONS IN PATIENTS WITH CANCERS

**Objectives:** To evaluate the laparoscopic techniques to preserve ovarian functions, their indications and their efficacy in terms of pregnancy and live birth rates.

**Settings and Design:** A comprehensive review on the basis of the current literature

**Materials, setting and methods:** PubMed was searched for research articles using terms “ovarian transposition” and “fertility preservation” “ovarian tissue cryopreservation" and "ovarian tissue transplantation” “premature ovarian insufficiency” up until April 2025. Articles were reviewed and relevant references within these articles were also reviewed. Secondary analysis of individual articles reporting pregnancy rates and live birth rates was performed using their own published data to provide the statistical terms.

**Results:** Among the available approaches for fertility preservation, oocyte and/or embryo vitrification and ovarian tissue cryopreservation are the methods currently endorsed by the American Society for Reproductive Medicine (ASRM) and European Society of Human Reproduction and Embryology (ESHRE), yielding encouraging results in terms of pregnancy and live birth rates. Laparoscopic ovarian transposition is a simple, safe, effective, but often forgotten, procedure for young premenopausal patients with cancers prior to undergoing radiotherapy. Ovarian tissue cryopreservation followed by autotransplantation is an effective way of preserving fertility in patients at high risk of premature ovarian insufficiency, especially women who cannot delay anticancer therapy and prepubertal girls.

**Conclusion:** Due to the risk of premature ovarian insufficiency and subsequent infertility caused by anti-cancer modalities, an appropriate approach to fertility preservation is required prior to therapy. The choice of one technique above the other depends mostly on the age and pubertal status of the patient, and personal and medical circumstances.

**Keywords:** fertility preservation, ovarian transposition, ovarian tissue cryopreservation, ovarian tissue transplantation, premature ovarian insufficiency, laparoscopy