

9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Key Lectures

K-32

New horizons in onco-fertility

Ledger W.

Director of Reproductive Medicine, Royal Hospital for Women, University of New South Wales, Sydney, Australia.

Email: ledger@unsw.edu.au

Improvements in the management of many common cancers in young people have led to significant growth in the number of long-term survivors of cancer in people of reproductive age. However, survival comes at a price, with many young people suffering significant side effects from chemotherapy and radiotherapy. These include significant damage to reproduction due to the gonadotoxicity of cancer treatments. Recognition of the importance of future fertility to cancer survivors has led to increasing interest in the subspecialty of “oncofertility” the preservation of reproductive options for young men and women before cancer treatment.

Fertility preservation is relatively straightforward for most post-pubertal males and cryopreservation of semen has been performed for over half a century for this group of patients. More recently, technological developments in cryopreservation of oocytes and embryos have allowed realistic chances of future fertility of female patients who preserve gametes or embryos before treatment. In younger patients or those who do not have time to undertake a stimulated IVF cycle to obtain oocytes, ovarian tissue cryopreservation is an increasingly used option. Testicular tissue is also frozen for pre-pubertal boys, but cannot currently be used to reinitiate spermatogenesis. Future prospects include novel means of ovarian protection providing improvement on the largely ineffective use of gonadotropin-releasing hormone agonists, and increasingly, in vitro maturation of immature oocytes to reduce the time taken to perform fertility preservation before cancer treatment can be started.