Egyptian Fertility Sterility Society

Live birth rate after embryo, oocyte and ovarian tissue cryopreservation

WHAT IS KNOWN ALREADY

Currently, fertility preservation (FP) has become a major public health issue as diagnostic and therapeutic progress has made it possible to achieve an 80% survival rate in children, adolescents and young adults with cancer (Reference 1).

In the European Society of Human Reproduction and Embryology (ESHRE) guidelines 2020, only oocyte and embryo cryopreservation are considered as established options for fertility preservation (Reference 2).

Ovarian tissue cryopreservation (OTC) is still considered to be an innovative method, while it is an acceptable fertility preservation technique in the American Society for Reproductive Medicine (ASRM) guidelines (Reference 3).

However, given the lack of studies on long-term outcomes after fertility preservation is still unclear which technique offers the best chance to achieve a live birth.

What is The New?

A recent systematic review and meta-analysis of published controlled studies in October 21, 2022 (Reference 4) concluded that:

1-The live birth rates following embryo and oocyte cryopreservation are 41% and 32%, respectively

2- The live birth rates following IVF and spontaneous after tissue cryopreservation and transplantation are 21% and 33%, respectively

Implications of This Findings: They are useful for helping practitioners counsel women about fertility preservation techniques.

References

1- Trama et al. Lancet Oncology 17:896-906, 2016

2- Andoson et al, ESHRE ,Hum Reprod Open. (4): hoaa052. Nov 14 2020.

3- Practice Committee of the American Society for Reproductive Medicine . Fertil Steril 112:1022–1033.,2019.

4- Fraison et al. Human Reproduction, pp. 1–14, November 3-2022