

Oocyte Cryopreservation for Single Women: Where India Stands in 2021

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Abstract

Assisted Reproductive Technology (ART) services in India have seen breakthrough advancements in the past years. Oocyte cryopreservation (OC) is an emerging robust technique utilized for assisted reproduction, especially fertility preservation (FP) in women with medical and non-medical reasons. In recent times, planned OC has become popular, and India has also seen an increase in the OC for non-medical reasons. Nevertheless, the surge also demanded proper regulation of the service offered to avoid exploitation of women on medical, legal, and ethical aspects. This mini review highlights the Indian policy on planned OC from a single women's perspective. Single women are allowed to avail ART services in India, which can empower their reproductive choices. However, on the other hand, it can reinforce the social norms or expectations that see motherhood as a central facet of womanhood and for which women are continuously pressurized. However, the ambiguity in the bill regarding planned OC and its duration makes it difficult to interpret, especially for the target population.

Keywords: Oocyte Cryopreservation; Assisted Reproductive Technology; Single Women; Reproductive Autonomy; Elective Egg Freezing

Abbreviations

OC: Oocyte Cryopreservation; FP: Fertility Preservation; IVF: *In-Vitro* Fertilization; ART: Assisted Reproductive Technology; EEF: Elective Oocyte Freezing

Introduction

In 2013, the American Society for Reproductive Medicine (ASRM) lifted the experimental label applied to OC, stating that *in-vitro* fertilization (IVF) using vitrified/warmed oocytes could produce similar fertilization and pregnancy rates as compared to IVF with fresh oocytes [1]. This has prompted the introduction of OC into a growing number of IVF clinics worldwide, and India in the past few years has also registered the highest growth in the Assisted Reproductive Technology (ART) centers and number of ART cycles performed every year [2]. India's fertility industry is an integral part of the country's growing medical tourism industry, which experienced 30% growth in 2000 and 15% growth between 2005 and 2010 [3]. Despite the remarkable activity in India, there is no standardization of protocols yet, and reporting is still very inadequate. Furthermore, there are only ART guidelines, and no law still exists in India [4]. OC has become popular during the last decades among women of reproductive age who wish to cryopreserve their oocytes for non-medical reasons [5]. It is termed elective egg freezing (EEF) or planned OC. As per some anecdotal reports, the urban cities of India have also seen a surge in

planned OC in recent years. According to a report, it has become a routine in metropolitan cities [6]. According to the government, young single women are subjected to unethical egg retrieval and cryopreservation, so standardization and reporting of the procedures are necessary [3]. Thus, to address the medical, ethical, and legal aspects of ARTs, The Assisted Reproductive Technology (Regulation) Bill was introduced in 2020 [4].

What the bill says and what it does not

The bill's objectives include proper registration and regulation of ART centers, regulation of cryopreservation of gametes and embryos, insurance cover for oocyte donors, mandatory pre-implantation genetic testing, and protection of women and children against exploitation. The bill states that any woman above the legal age of marriage and below the age of 50 years shall be provided with the services of both ART clinics as well as ART banks [4]. As per the standing committee report (SCR), single women, i.e. divorced/ widowed/unmarried, can avail themselves of ART services in India [3]. The bill also mentions that the ART banks should collect oocytes from females between twenty-three and thirty-five years of age [4]. It states that oocytes collected from "donors" shall be stored for ten years.

Nevertheless, the bill has ignored mentioning the duration of cryopreservation of gametes of women who are not donors and wish to go for planned OC. Also, oocyte donation by single women is not yet allowed. Along with the cryopreservation instructions, some general duties of ART clinics and banks include professional counseling of the women about the implications of the procedures, including success rate, advantages, cost, and disadvantages, and to make them aware of the rights of children born using ART [4]. It is necessitated for the ART clinics and banks to have a grievance cell and to submit the data to a National Registry, making the process more robust. Though the points mentioned earlier are clearly going to regulate the country's ART services, there are still few changes like "EEF" or "planned OC" that need to be added to give an explicit picture. The cryopreservation duration for oocytes collected from a single woman and if a parous widow or divorced woman is eligible for oocyte donation shall be included in the bill. According to the authors, single women with a good pool of oocytes shall be allowed for oocyte donation as a woman has a right of autonomy on her body. Also, a protocol is needed to regulate the high variation in the cost of ART services offered to the beneficiaries.

Conclusion

The ART (regulation) bill, 2020, is a historic bill that will undoubtedly change how ART services are offered. Moreover, the inclusion of single women for ART services might relieve them from the pressure of having a child at a particular age. Women who fear natural age-related infertility, career advancement in their 20's or 30's, lack or loss of partner might benefit from OC. However, the inclusion of either EEF or planned OC, OC duration for single women, and regulation of ART costs are still required to make the bill more transparent and less ambiguous to be easily interpreted by the target population.

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