Fertility Design
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Egg Freezing

One of the most worth-mentioned issues in assisted reproductive medicine constitutes, nowadays, the option of egg freezing in order for women to ensure and maintain their fertility through the years.

The last 15-20 years, many centers are using vitrification as a method of choice for cryopreservation of human oocytes and embryos. As vitrification technologies have improved their success profiles, new applications seem to have emerged, making IVF treatments more successful and more flexible. The Cryotech method, is the latest "minimal volume approach" method, suitable for cryopreservation of oocytes and embryos of any developmental stage, including blastocysts. It's the most suitable option for women who want to secure their fertility and have possibilities in the future to experience maternity. The most causative factors for this option, is that woman during her reproductive age to face serious diseases (endometriosis, breast cancer BRCA ,ovarian tumor). These cases can lead to surgical interventions, chemotherapy or radiation which can harm the reproductive system of the woman and reduce the production of oocytes, both numerically and qualitatively.

The modern society tends to lead women to give priority to their studies and professional successfulness, creating a generation of women who decide to gestate in an average age (>35 age). However, many times there are upcoming ethical issues concerning the cryopreservation of embryos or oocytes. In contrast to the society that tends to change from day to day, human's physiology as well as the scaling of reproductive age stays the same (<35). Women are born with specific number of oocytes (in every cycle approx. 900 are eliminating). Every month one ovum maturates and can be fertilized. From the age of 35 and after, women have 10% of oocytes storage. The possibilities for chromosomal abnormalities are 1:11.999, while at the age of 42 possibilities are 1:1.766 and at 45 have raised to 1:352.

The cryopreservation is preferred to be performed until the age of 38, but it is always dependent to the woman's particularities (pathologic hormonal exams, low AMH, reduced production of oocytes after ultrasound examination, etc.).

The procedure is consisted of 3 stages:

Step 1: Control Ovarian Hyper-stimulation (COH)
Ovarian stimulation with injectable medications, for Qualitative and quantitative production of oocytes.

Step 2: egg retrieval

Step 3: Vitrification method

Oocytes that are cryopreserved are “waiting” for the right time, when woman will be able to use them properly. In fact, this process stops the biological clock and freeze the time of fertility. When woman decide to get pregnant, the oocytes are thawed and fertilized with the husband’s/partner’s sperm. Embryos are cultured in the lab and transferred to woman with ICSI technique as well as it happens in IVF procedure. Until now, many women chose the vitrification method and many babies with this procedure have been born as healthy as IVF babies with “fresh” oocytes.