Lefter to the Editor

Elective egg freezing: can you really turn back the clock?

Dear Editor,

Ever improving techniques in egg freezing and thawing has generated an important "open debate" in its elective use. Facebook and Apple and other companies have decided to set an example in elective egg freezing (EEF) by giving to their employees a special benefit, effectively allowing them to turn back the clock in order to attract top female talent. However, there are several ethical and medical issues which must be addressed in EEF regarding young fertile women.

The oocyte cryopreservation by using different slow freezing techniques has a long history, although the results obtained by the application of these techniques in terms of oocyte survival after thawing together with the related pregnancy rates were often unsatisfactory, therefore the oocyte cryopreservation was classified as experimental^{1,2}. The most recent introduction of "vitrification" technique to egg cryopreservation, which is an ultra rapid cooling procedure allowing the water inside and around the oocyte to suddenly super cool into a solid state completely avoiding the formation of ice crystals, has given very promising results with significant pregnancy rates and some protocols for the application of this technique are currently available²⁻⁴. Since 2013, egg cryopreservation has no longer been considered experimental by the American Society of Reproductive Medicine and currently it represents an integral part of the procedures belonging to ART and IVF².

Because of a significant drop in female fertility after the age of 35, egg cryopreservation provides better results if performed in women below 30. The cryopreservation of a satisfactory number of eggs gives a good statistical probability to achieve pregnancy until the end of 40s^{5,6}. However, this does not guarantee a future fertility at any cost.

Taking into consideration the growing success of this technique and therefore the expectations of a wider use, the debate around EEF without a medical indication is open with divergent positions.

First of all, there is an important fairness issue, which has to be discussed; should everyone, in particular those with a real need, have equal right of access in terms of economic coverage? For example, cancer patients who have to undergo certain chemotherapy treatments, carriers of genetic diseases, etc. None of these categories in which there is a medical indication should be neglected in terms of benefits, to encourage or cover the costs of building a family.

Secondly, taking into account the significant costs of EEF, not only for egg extraction but also for their storage, those women who want to preserve their fertility and do not receive special benefits from their employers may adopt alternative approaches in order to cover these costs, such as an "egg-sharing option". However, this could generate further ethical issues and even conflict of interest.

Finally, a key point which needs to be addressed is the legislative approach to this matter adopted by each country, which has generated in certain cases a surplus of laws^{7,8}. Certainly, "ART represents a rather new medical field" and constant developments in medicine and new opportunities continue to defy the attempt to regulate once and for all this field⁷. Surely, egg freezing represents an important medical advance.

For some women it may be the proper solution, while for others an unnecessary procedure. But, like all medical discoveries, an exhaustive information has to precede the obtaining of consent, together with the spreading of fair policies which would allow an equal access to the benefits that this technique can provide, making it less questionable.

However, we firmly believe that it is impossible to put the clock back even though medical progress in this field has made leaps and bounds and it is still essential to safeguard the use of this new technology before putting women and children's health at stake.

Conflict of Interest

The Authors declare that they have no conflict of interests.

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