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This press release is in support of a presentation by Dr Dominic Stoop on Tuesday 9 July 2013 at the ESHRE annual meeting in London.

Egg banking for social reasons: women feel positive about it, even though many believe they will never use the eggs they have stored

London, 9 July 2013: Egg freezing as insurance against age-related infertility is a growing trend in many countries. Women who bank oocytes for use at some time in the future hope to buy a little time in their search for a suitable partner.

However, a study from one of Europe's largest centres in reproductive medicine suggests that many of those banking eggs believe they will never use them - even though they still recognise the experience as "positive". The majority of those who did (and did not) freeze their eggs wished they had done so at an earlier age.

The study of what is an increasingly common procedure was performed at the hospital of the Free University of Brussels, Belgium, and was presented at the annual meeting of ESHRE by Dr Dominic Stoop from the hospital's Centre for Reproductive Medicine.

This was a study of what the investigators called "oocyte banking for anticipated gamete exhaustion", a term which reflects the motivation of participants and the biological certainty (the depletion of ovarian follicles over time) which the procedure hopes to overcome.

The study was a follow-up survey of 140 women considering egg banking between 2009 and 2011. Their mean age was 37 years. They were surveyed with a questionnaire on their relational and reproductive circumstances, their attitude towards oocyte banking and their future reproductive plans. Of those surveyed, 86 women (61.4%) completed at least one treatment

cycle from which eggs were collected and cryopreserved. The non-bankers included 54 women who either preferred no treatment (51%) or attempted stimulation but cancelled because of poor response (3%).

Results showed that of those banking eggs around one-third (34.1%) believed they would never have to use them, with many (75%) indicating at follow-up that they considered the use of frozen oocytes less likely than anticipated at the time of oocyte collection. However, nearly all (96.2%) said they would do it again - but preferably (70.6%) at a younger age. Among those actually banking eggs, nearly all said they would recommend the treatment to others.

The survey also showed that those banking eggs accepted a higher age for motherhood than those not doing so (43.8 years and 42,5 years) and all were still keen to have a baby. However, in terms of relationships and reproductive potential, there appeared little difference between the egg bankers and non-bankers, with similar steady relationships (around 50%), attempts at conception (around 35%) and experience of infertility (7%).

The investigators thus suggest that oocyte freezing to preserve fertility provides important psychological reassurance for those opting to use the technology, as expressed by the positive response of all participants, even those with a lower intention of ever using their eggs.

"Our results indicate that most women who have had oocyte cryopreservation have no regrets about it, but do wish they had done so at a younger age," said Dr Stoop. "This makes sense, because the younger the eggs, the better the chance of pregnancy. But ideally oocytes are cryopreserved in the early thirties, when oocyte quality is still good and we can retrieve a good number of oocytes per cycle. While oocyte quality and quantity are better at a younger age, women in their twenties still have a relatively long fertile period ahead of them, with a great chance that they may never need the cryopreserved oocytes."

Dr Stoop added that, while oocyte cryopreservation has become a mainstream fertility technique with excellent results, especially in oocyte donation programmes, the clinical outcome of oocyte cryopreservation for anticipated gamete exhaustion at a more advanced maternal age is less certain. "Although the pioneer group in our study appears to be satisfied," he said, "a more efficient preservation of fertility would have required oocyte freezing at a significant younger age."

Since 2009, about 140 women have had a minimum of one oocyte cryopreservation cycle at the Centre for Reproductive Medicine in Brussels. A total number of 2380 oocytes have been cryopreserved, with an average of 17 oocytes per woman (from an average of two cycles each). So far, only one woman has come back to thaw her oocytes (which were cryopreserved at the age of 39), but the embryo transfer did not result in pregnancy.

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Oocyte banking for anticipated gamete exhaustion (AGE): a follow-up study

Notes

* Oocyte banking has been revolutionised by a rapid freezing technique known as vitrification (which preserves cells in a glass-like state without the formation of ice crystals, which formerly proved damaging to the integrity of the egg). Recent studies suggest that oocytes warmed and fertilised after vitrification perform just as well in IVF as fresh oocytes.

* Oocyte vitrification for fertility preservation is currently performed for two different reasons - for "medical indications", usually ahead of cancer treatment in younger women, and for social reasons (as is the case in this study), usually for biological clock reasons and as insurance against age-related infertility.

* When obtaining outside comment, journalists are requested to ensure that their contacts are aware of the embargo on this release.

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