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TITLE

IMPACT OF PATIENT AGE AND DAY OF VITRIFICATION ON THE RESULT OF FREEZE ALL STRATEGY

AUTHOR/S

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ABSTRACT

Context : Controlled ovarian hyperstimulation may impair endometrial receptivity. This negative effect could be avoided by cryopreservation of all embryos with good quality and transferring them in a natural cycle -"freeze all" strategy. This method gives better results than the fresh ET in normal responders as well in patients with premature luteinization.

Objective: To analyse the impact of patient age and the day of vitrification on the cryosurvival, cancellation and ongoing pregnancy rates in "freeze all" strategy.

Methods: Vitrification of embryos on day 3 and day 5. We performed laser assisted hatching to all of the warmed embryos before ET.

Patient(s): We analyse 93 vitrified embryo transfers (VET). All cases were freeze all strategy. Patient age was 24-46 years.

Intervention(s): We investigated 424 vitrified embryos. Warmed were 256 of them.

Main Outcome Measure(s): We divided VET into 2 groups by the age of the woman. Group I (patients < 35 years) 65 cycles and group II (patients ≥ 36 years) 28 cycles. There was no statistical difference in cryosurvival and cancellation rates and number of transferred embryos in both groups.

Result(s): Ongoing pregnancy rate (OPR) in the two age groups was without statistically significant difference: Group I - 59.1% versus 49.3% in group II (p=0.15).

We found statistically significant increase in OPR when we transfer vitrified embryos on day 5 compared to day 3 in both groups. Group I – 68.1% (day 5) versus 35.3% (day 3)(p=0.02). Group II – 88.9% (day 5) versus 17.6 % (day 3)(p=0.0006).

Conclusions: Freeze all strategy is appropriate not only for young normal responders or patient with premature luteinization but also for woman with advanced maternal age. For optimal results in "freeze all" program is better to culture embryos to day 5 and vitrify blastocysts versus day 3 embryos.

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