

65: PGS: DOES THIS EXPENSIVE TECHNOLOGY IMPROVE OUTCOMES IN DONOR OOCYTE THAW CYCLES (DOT)?

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Objective

Improvements in oocyte cryopreservation(OC) have led to successful oocyte banking and more readily available cryopreserved donor oocytes(DO). Simultaneously, preimplantation genetic screening(PGS) has increased, even with DO. Using OC, DO, and PGS together is less common, but now occurs. Reservations include increased technological and financial cost (\$1,100/oocyte). Our goal was to determine whether adding PGS increases implantation and live birth rates in DOT.

Design

Retrospective cohort study.

Material and Methods

We conducted a retrospective analysis of DOT performed 10/2004-1/2017 at a university-based fertility center. To remove bias, we conducted a sub-analysis of single embryo transfers(SET). Data was mined for: number of oocytes thawed/survived/fertilized, embryo development/transfer/implantation, and ongoing pregnancy/live birth. Mood's median and Fischer's exact tests were used for statistical analysis.

Results

Within the 130 non-PGS DOT (118 pts, median age:26y), 1138 oocytes (median:8/cycle) were thawed. Within the 15 PGS DOT (15 pts, median age:24y), 180 oocytes (median:11/cycle) were thawed; a mean of 3 blastocysts(BL) were biopsied. Oocyte survival, 2-PN fertilization, BL formation, implantation, and ongoing pregnancy/live birth rates were not significantly different between the groups. The multiple birth rate in the non-PGS group was 6% (5/84 births). When controlling for SET, no differences were found in implantation or ongoing pregnancy/live birth rates with and without PGS ($p > .1$). When comparing embryo quality in the non-PGS group, a higher ongoing pregnancy/live birth rate was noted among SETs with excellent-quality Gardner's $>2Bb$ (62%; 50 births/81 transfers) when compared with SETs with poor-quality Gardner's $<2Bb$ (35%; 8 births/23 transfers; $p = .03$).

Conclusions

Due to this study's small sample size, it is difficult to conclude whether PGS improves implantation/live birth rates in a young donor population. In DO cycles with excellent-quality BL for transfer, morphology alone predicts a high live birth rate. Given the financial and technological burden of PGS, larger studies are needed to determine whether the costs of PGS outweigh the benefits in DO cycles.

Support

None