

37: CORRELATION BETWEEN MORPHOLOGIC GRADING AND EUPLOIDY RATE OF BLASTOCYSTS, AND CLINICAL OUTCOMES IN IVF-PGS CYCLES

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Objective

To investigate the correlation between morphologic grading and euploidy rate of in vitro fertilization (IVF) preimplantation genetic screening (PGS) and compare the pregnancy rates in young and old ages.

Design

Retrospective cohort study

Material and Methods

This is a retrospective study using the medical records of patients who underwent IVF procedures with PGS between January, 2016 and February, 2017 in a single center. Total of 136 IVF cycles were included. The embryo grades were categorized into 4 groups: Excellent, Good, Average, and Poor. Basic characteristics, euploidy rates, clinical pregnancy (CP) rates and ongoing pregnancy rates were analyzed.

Results

The Excellent group had significantly higher rate of euploid embryos than Average group (47.82% vs. 29.33%, $P = 0.023$) and group P (47.82% vs. 29.60%, $P = 0.005$). When the four groups were recategorized into two groups (Excellent & Good vs. Average & Poor), they also showed significant difference in euploidy rates (44.52% vs. 29.53%, $P = 0.002$). The total CP rate was 46.4%. When the patients were divided into two groups by age 35, the CP rates for those under and over 35 years old were 44.74% and 47.83%, respectively, which showed no significant difference.

Conclusions

The significant differences among the euploidy rates of different morphologic embryo grades demonstrated the positive correlations between the morphologic grading of the embryo and the euploidy rate of PGS. Additionally, there was no significant difference between the younger and older patients' CP rates, which emphasizes the fact that PGS might be indicated for older patients.

Support

None