

EMBRYO CULTURE TYPE (SINGLE VS SEQUENTIAL) DOES NOT AFFECT THE ANEUPLOIDY RATE

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Abstract Body

The aim of the present study was to compare aneuploidy rates after embryo culture in a single medium versus sequential media.

An observational, retrospective study of the patients included in the cycles of Preimplantation Genetic Diagnosis (PGD) dated from March 2016 to July 2016 in IVI Madrid.

A total of 128 patients were included in this study, age ranging from 28 to 46 years. The mean age of our female population in sequential group was 39.7 years old and in single medium were 39.5. The inclusion criteria were: recurrent miscarriage (≥ 2 previous abortions), preimplantation failure (≥ 3 previous IVF failures), Advanced Maternal Age (≥ 38 years), male factor (< 2 million spermatozoa/ml), inversions and translocations and genetic diseases. Were biopsied 623 embryos on day 5 or 6 of development and analyzed through Array-CGH (Comparative genomic hybridization). This study compares embryo culture at single medium with embryo culture at sequential media. Means were analyzed with a Chi Squared and a P-value ≤ 0.05 was considered statistically significant. Data were analyzed with the Statistical Package for the Social Sciences software program.

Out of 265 biopsied embryos in group 1(single medium), 58 reached chromosomally normal (22%) compared to 67 normal embryos out of 358 in group 2 (sequential medium) (19%).Were no statistically significant. Of the 623 embryos analyzed from the PGD program, no statistically significant differences were observed in the total blastocyst rates in both groups (single medium: 64%; sequential medium: 58%; $p=0.2$). No differences were observed between single and sequential media for clinical pregnancy rate, 54% single medium, 65% sequential medium and implantation rate 48% single medium, 53% sequential medium.

The similar reproductive outcomes may suggest that single and sequential media are equally able to support human embryo development in vitro and no differences were observed between single and sequential for aneuploidy rate.