

CRYOTRANSFER RESULTS AFTER TROPHECTODERM BIOPSY, BLASTOCYST VITRIFICATION AND WARM UP IN A PGS PROGRAM

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Introduction

Development is not the same in all the embryos of a same cohort. Therefore, blastocysts vitrification after biopsy allows both days 5 and 6 biopsy which increases the number of embryos analyzed and gives us the time required for analysis. Moreover, it is a strategy that allows transfer back the normal embryo in a non-stimulated cycle.

The aim of this study was to evaluate our cryotransfer results after trophectoderm biopsy and whole genome amplification in our PGS program.

Material & methods

Retrospective study (1503-VLC-017-AM) involving 86 couples (402 blastocysts) from our PGS program (2012-2014). Mean maternal age: 37.9 years. The biopsy was carried out in fresh blastocysts. Trophectoderm biopsy was possible in 80 cycles (93%). Biopsied blastocysts were vitrified within the hour following biopsy. Analysis by aCGH was performed. From the 402 blastocysts, 158 of them were normal (39.3%). Only euploid blastocysts were transferred in a next cryotransfer.

Results

One hundred and five blastocysts were warmed up and 100 of them (95.2%) survived. Embryo transfer was performed in 67 cycles. Forty and five of them (67.2%) had a positive β -hCG 10 days after embryo transfer. Forty and one pregnancies (61.2%) were confirmed by ultrasound diagnosis with 56 positive foetal heart bit (25 singletons and 10 twins) representing an implantation rate of 56%. Twelve pregnancies are ongoing and 24 healthy babies at home.

Conclusions

Our results suggest that vitrification of blastocyst after trophectoderm biopsy and aCGH analysis does not impair their implantation potential.

Keywords

Cryotransfer, trophectoderm biopsy, aCGH, vitrification, PGS, implantation rate