

100% Post-warmed survival rate for 6059 embryos in Alpha IVF

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ABSTRACT

Introduction: Cryopreservation of embryos is commonly carried out in human assisted reproduction. The survival of cryopreserved embryos after they have been thawed has become an important factor in achieving a good clinical outcome. Alpha IVF adopted the Cryotec Method for embryo vitrification and warming since July 2013. This study demonstrates the post-warmed survival rate for 6,059 embryos in 4,394 vitrified/warmed embryo cycles. **Methods:** Since Alpha IVF commence the use of Cryotec Method in July 2013 till now (April 2021), Alpha IVF had vitrified and warmed 6,059 embryos using the Cryotec Method for 4,394 vitrified/warmed embryo cycles. The embryo vitrification and warming protocols were conducted according to manufacturer's protocols (Cryotech, Japan). The number of cycles for each age group was 2,524 (<35 years old), 936 (35-37 years old), 423 (38-39 years old), 217 (40-41 years old) and 109 (≥42 years old). The number of embryos vitrified and warmed for each age group was 3,436, 1,182, 504, 258 and 131 respectively. **Results:** Of the 6,059 embryos warmed, all embryos survived. **Conclusion:** This study shows that by using the Cryotec Method, we consistently achieved 100.0% (6,059/6,059) post-warmed survival rate in embryos.

Insemination of vitrified-warmed oocytes with delayed maturation leads to successful live birth following frozen embryo transfer: A case report

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ABSTRACT

Introduction: Insemination and cryopreservation of oocytes are usually done on Day0 mature oocytes (MII). Salvaging Day1-MII oocytes can increase the number of utilizable embryos. A 31-year-old patient presented with PCOS underwent IVF treatment at Alpha IVF in November 2018. She had 40 oocytes retrieved, of which only 20 MII oocytes were subjected to insemination (PIEZO-ICSI). This led to an unsuccessful pregnancy following FET of a euploid blastocyst. The remaining 15 Day0-MII oocytes were vitrified using Cryotec method (Cryotech, Japan) while 5 immature oocytes were left to mature overnight. On the following day, 3 matured oocytes (Day1-MII) were subsequently vitrified. **Case Description:** This case report describes a successful live birth following FET of a blastocyst derived from vitrified-warmed oocytes with delayed maturation. All cryopreserved MII-oocytes were warmed and inseminated in a subsequent cycle. Utilizable blastocysts (Gardner's Grading) were biopsied and vitrified. Biopsied cells were subjected to PGT-A using next generation sequencing (Ion Torrent, USA) and euploid blastocysts were transferred. All MII oocytes (15x Day0, 3x Day1) survived post-warmed and 10 fertilized (8 from Day0-MII, 2 from Day1-MII) post-PIEZO-ICSI. Two good-graded blastocysts were vitrified (1 from Day0-MII, 1 from Day1-MII). Both blastocysts were euploid. Patient had elective double blastocyst transfer in October 2019 which resulted in a twin pregnancy. Patient had an uneventful delivery at 38 weeks. **Discussion:** Post-warmed Day1-MII oocytes have potential to develop into euploid blastocyst and live birth. Therefore, the salvaging of immature oocytes on Day 0 should be considered to increase the number of blastocysts available for embryo transfer.