

Oocyte dysmorphisms are not associated with post warming survival, fertilization and embryo development in own oocytes vitrification cycles.

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Objective: To evaluate the impact of oocyte dysmorphisms on survival, fertilization rate and embryo development in own oocyte vitrification cycles.

Design: Retrospective analysis.

Materials and Methods: The study included a total of 416 MII oocytes obtained from 88 patients. Morphology evaluation was assessed before vitrification under 400x magnification. A total of 147 dysmorphic oocytes were detected. Oocyte dysmorphisms included diffuse cytoplasmic granularity, centrally located cytoplasmic granular area, smooth endoplasmic reticulum, vacuoles, shape abnormalities, large perivitelline space and abnormal zona pellucida. Oocytes were vitrified and warmed with Cryotop method (KitazatoBiopharma). Chi-square test was performed to compare proportions among groups. $P < 0.05$ was considered statistically significant.

Results: The survival rate was 81.4% in normal oocyte group and 86.4% in dysmorphic oocyte group [odds ratio (OR)=1.4; 95%CI = 0.8-2.5]. The fertilization rate was 69.8 vs. 66.9% (OR=0.9; 95%CI= 0.6-1.4) and blastocyst rate was 54.5% vs 60.5% (OR=1.3; 95%CI= 0.5-2.7) for normal and dysmorphic oocytes, respectively (NS). No statistical differences were found when analyzed survival, fertilization and blastocyst rate according to the presence of one or more oocyte dysmorphisms.

Conclusion: The presence of oocyte dysmorphisms affects neither survival or fertilization rate nor embryo development in own oocytes vitrification cycles.