

TRANSFER ON DAY 3 VERSUS TRANSFER ON DAY 5 ON THAW EMBRYO CYCLES.

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Objective: The aim of this study was to analyze pregnancy and implantation rates (PR and IR) in three groups of frozen cycles regarding the day of vitrification and the day of transfer.

Design: Retrospective study of vitrified embryo transfer cycles assessed between January 2009 and October 2010 at IVI Barcelona.

Methods: A total of 688 thawed embryo transfer cycles were included in the study, and they were classified in 3 groups:

Group A: Thawing day 3 embryos for transfer the same day. The number of thawed embryos was just the necessary to assure transfer of 1-3 good embryos (526 cycles, 1182 thawed embryos).

Group B: Thawing day 3 embryos that were cultured until day 5. At least 4 embryos were thawed to assure selection of best blastocysts for transfer (87 cycles, 385 thawed embryos).

Group C: Thawing blastocysts for transfer on the same day (75 cycles, 124 thawed embryos).

Mean embryos replaced and mean women's age were comparable in all groups. Assisted hatching was performed before transfer in all warming cycles.

Results: Survival rate was similar in all groups: 88.6%, 90.5% and 84.5%. In group A, PR and IR were significantly lower than in group B (PR: 37.8% vs 57.5%, $p=0.0018$. IR: 25.3% vs 38.9%, $p=0.0002$). Group C shows similar PR and IR to group B (PR: 45.3%. IR: 35.0%. NS)

Conclusions: Better results are achieved when thawed embryos are selected for transfer on blastocist stage independently on the day they have been vitrified.