Article title: A Comparative Study Between Day 2 and Day 3 Embryo Transfer in IVF/ICSI: A Retrospective Study.

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Abstract

Background: Although the fertilization and cleavage rate of implanted embryos is about 70-90% in most patients, but only a small number of embryos grown in vitro have the potential to implant. This indicates that many factors are responsible for a successful implantation, including obtaining viable embryos for transfer.

Method: To investigate the clinical outcomes of pregnancy and implantation rates between day 2 and day 3 embryo transfer (ET) in a retrospective study, a total of 284 embryo transfers were examined from March 2013 until December 2014. The transfer was done according to physician preference, patient characteristics, or number of embryos available.

Results: The data suggested that clinical (35.4% vs. 28.9%) or ongoing pregnancy (32.5% vs. 23.7%) or implantation rate (0.17 ± 0.2 vs. 0.12 ± 0.2) was slightly better, and the miscarriage rate (3.1% vs. 7%) was slightly lower, in day 3 ET versus day 2, but this difference was not significant. Although most of the baseline characteristics were similar between both groups, the number of high-quality embryos (5.29 ± 3.9 vs. 4.47 ± 3.05) and average embryo cleavage score (2.85 ± 0.4 vs. 2.25 ± 0.3) was significantly higher in the day 3 ET as compared to the day 2 ET.

Conclusion: The results of the present study demonstrated a similar clinical outcome between ET performed on days 2 and 3 in women younger than 40 years undergoing fresh intra cytoplasmic sperm injection-embryo transfer cycles(ICSI-ET).

Key words: Embryo transfer, Fertilization in vitro, Pregnancy Outcome.