

4: INTRAUTERINE ADMINISTRATION OF HCG BEFORE EMBRYO TRANSFER DECREASES THE FREQUENCY OF EARLY PREGNANCY LOSS

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Objective

Human chorionic gonadotropin (hCG) is one of the early embryonic signals in humans, secreted by the embryo. Several studies have demonstrated its essential role in the process of blastocyst implantation and pregnancy maintenance. The goal of this study was to assess the effects of intrauterine administration of hCG one day before embryo transfer on the frequency of early pregnancy loss in infertile patients.

Design

Retrospective case-control study between January 2017 and March 2018

Material and Methods

This retrospective study was done on 163 infertile patients confirmed clinical pregnancy after single blastocyst transfer in two groups: intervention group (81 patients) received 500 IU of intrauterine hCG one day before embryo transfer and control group (82 patients) did not receive hCG before embryo transfer. Early pregnancy loss was defined as spontaneous loss before 12 completed weeks of pregnancy, and was documented as the absence of fetal viability that was confirmed by the ultrasonography. A comparison was made between the studied groups of patients with respect to certain basal characteristics (age, body-mass index (BMI), and embryo quality). Statistical analysis was performed using Chi-square test to compare the differences between the two groups. Statistical significance was accepted at $P \leq 0.5$.

Results

There was no significant difference between the two groups in respect to age, BMI, and the quality of the transferred embryos. The frequency of pregnancy loss in hCG group was significantly lower (27.1% (22/81); $P = 0.05$) in comparison with the control group (41.5% (34/82)).

Conclusions

The intrauterine administration of 500 IU of hCG one day before embryo transfer resulted in decreased frequency of early pregnancy loss in comparison with the control group.

Support

None