

P-203: The Impact of Low-Dose Aspirin on Clinical Reproductive Outcomes in Frozen-Thawed Embryo Transfer Cycles; A Randomized, Placebo-Controlled Double-Blind Study

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Background: The objective of this study is to evaluate whether low-dose aspirin affects doppler sonographic parameters of the uterine arteries, endometrial thickness and pregnancy rate of women undergoing frozen-thawed embryo transfer cycles.

Materials and Methods: This randomized, double-blind, placebo-controlled trial study was conducted between April 2012, and March 2013. A total of 60 eligible patients (aged 18-40 years) were randomly assigned to the study and control groups by using computer-generated random numbers. Allocation concealment was performed by using sealed envelopes. With the onset of endometrial preparation and estrogen treatment, the study and control groups received 100 mg of oral aspirin or placebo respectively. Doppler ultrasonography also was performed to calculate resistive index (RI) and pulsatility index (PI). The results of treatment cycle were compared in both groups.

Results: There were no statistically significant differences between groups with regard to age and basal hormone levels. Both groups were comparable with respect to endometrial thickness on

ET day and impedance indices (PI, RI) for both uterine arteries. Compared with placebo controls, aspirin group had a significantly higher pregnancy ($p=0.045$) and implantation rates ($p=0.047$). No statistically significant difference was detected in miscarriage rate between two groups.

Conclusion: It seems that low-dose aspirin therapy positively affects pregnancy and implantation rates of women undergoing frozen-thawed embryo transfer cycles.

Keywords: Aspirin, Frozen-Thawed Embryo Transfer Cycle, Endometrial Thickness, Reproductive Outcome