Endometrial stimulation increases pregnancy rate in IVF-ET until at least 8 months

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Context
Endometrial stimulation (ES) is one of the procedures to improve IVF-ET outcome. Hypothesis of ES is that mechanical injury to endometrium might provoke recovery process in the endometrium which in turn improves pregnancy rate. However, its effect on the pregnancy rate in IVF-ET cycles is not confirmed yet. Also there is no consensus about how often ES should be repeated.

Objective
To compare pregnancy rate between ES group (IVF-ET cycles with ES) and control group (IVF-ET cycles without ES). Pregnancy rate was also compared in recent ES group (1 - 3 months from ES) and remote ES group (4-8 months from ES).

Methods
Retrospective observational study

Patient(s)
IVF-ET cycles in patients with AMH>=1, age<40 from May 2013 to April 2014 were reviewed. Fresh embryo transfer cycles and thawed embryo transfer cycles were included.

Intervention(s)
ES was done on the 3rd day of menstruation in controlled ovarian stimulation cycle for IVF-ET in the ES group. Decision of doing ES was made considering the patient's preference and physician's decision.

Main Outcome Measure(s)
Pregnancy rate was compared between ES group and control group. Pregnancy rate is described depending on the duration from ES (recent ES group and remote ES group).

Result(s)
In fresh embryo transfer cycles, pregnancy rate was higher in ES group than in control group although
statistically not significant (52.9% vs. 40.6%, respectively, p=0.172). Significant higher pregnancy rate was seen in the ES group than in control group with thawed embryo transfer cycles (67.9% vs. 44.4%, respectively, p=0.048). Increased pregnancy rate was maintained in recent ES group and remote ES group (60.0% and 87.5%, respectively).

Conclusions
ES might increase pregnancy rate in IVF-ET with fresh and thawed embryo transfer cycles. Its effect is maintained until at least 8 months after procedure.