

Endometrial scratching for infertile women undergoing a first embryo transfer: a systematic review and meta-analysis of published and unpublished data from randomized controlled trials.

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ABSTRACT

OBJECTIVE: To investigate endometrial scratch injury (ESI) as an intervention to improve IVF outcome in women undergoing a first ET.

DESIGN: Systematic review and meta-analysis.

SETTING: Not applicable.

PATIENT(S): Infertile women undergoing a first fresh/frozen embryo transfer.

INTERVENTION(S): We included published and unpublished data from randomized controlled trials in which the intervention group received ESI and controls received placebo or no intervention. Pooled results were expressed as relative risk (RR) with 95% confidence interval (CI). The review protocol was registered in PROSPERO to start the data extraction (CRD42018087786).

MAIN OUTCOME MEASURE(S): Ongoing pregnancy/live birth rate (OPR/LBR), clinical pregnancy rate (CPR), multiple pregnancy rate (MPR), miscarriage rate (MR), and ectopic pregnancy rate (EPR).

RESULT(S): Seven studies were included (1,354 participants). We found a nonsignificant difference between groups in terms of OPR/LBR, CPR, MR, MPR, and EPR. Subgroup analysis found that ESI on the day of oocyte retrieval (achieved by a Novak curette) reduced OPR/LBR (RR 0.31, 95% CI 0.14-0.69) and CPR (RR 0.36, 95% CI 0.18-0.71), whereas ESI during the cycle preceding ET (performed through soft devices) had no effect on OPR/LBR and CPR. No difference in the impact of ESI was observed between fresh and frozen embryo transfer.

CONCLUSION(S): Current evidence does not support performing ESI with the purpose of improving the success of a first ET attempt.