Endometrial thickness and pregnancy rates after IVF: a systematic review and meta-analysis

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Introduction
Thin endometrium on ultrasound in the course of ovarian hyperstimulation has been thought to be associated with poor success rates after IVF.

In order to assess the clinical significance of endometrial thickness (EMT) for IVF outcome, a systematic review and meta-analysis was performed.

Material & methods
• Systematic review and meta-analysis.
• Studies that investigated the association between EMT and IVF outcome.
• Summary Receiver Operating Characteristics (sROC) curves.
• Mantel-Haenszel random effect model.
• Meta-regression

Results 1/2
• 22 studies included.
• Thin endometrium (≤ 7 mm) in 2.4% of the cases.

Conclusions
• The frequently reported cut-off of 7 mm is related to a lower chance of pregnancy, but occurs infrequently.
• Cancelling IVF treatment cycles, freezing of all embryos or refraining from further IVF treatment seems not to be justified based on solely a thin EMT.
• Further research is needed to investigate the biological significance of EMT in IVF, for instance by relating the ultrasound image to endometrial histology.

Endometrial thickness has limited capacity to identify women who have a low chance to conceive after IVF.