

Endometrial scratch to increase live birth rates in women undergoing first-time in vitro fertilisation: RCT and systematic review

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Plain English summary

Endometrial scratch in first-time in vitro fertilisation

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Plain English summary

The endometrial scratch is a simple procedure that involves ‘scratching’ the lining of the womb (the endometrium). Several small studies have shown that undertaking this before the first in vitro fertilisation cycle may improve live birth rates; however, other studies have contradicted this.

This large study was carried out to confirm whether or not having an endometrial scratch before the first in vitro fertilisation cycle would increase the number of women having a live birth compared with those having ‘usual’ in vitro fertilisation treatment (known as the ‘control’ group). We collected information about pregnancy, miscarriage, stillbirth, pain during the procedure and costs of treatment to find out if there were any meaningful differences.

A total of 1048 women aged between 18 and 37 years were randomly allocated to the two groups, so participants had a 50% chance of having the endometrial scratch. Women were followed up throughout their pregnancy to ascertain the outcome of their in vitro fertilisation cycle. Although the live birth rate was 1.5% higher in the endometrial scratch group (38.6%) than in the control group (37.1%), the difference was not large enough to show any benefit of having the procedure. Other outcomes did not differ significantly between the two groups. However, the procedure was safe and tolerable. We found that the cost of treatment was, on average, £316 per participant higher in the group that received endometrial scratch than in the control group; the difference was not large enough to show that receiving endometrial scratch was more cost-effective. We combined the results of this trial with those of previous trials that looked to answer a similar question, and found that, overall, the endometrial scratch procedure does not enhance the chances of achieving a live birth.

We conclude that endometrial scratch before first-time in vitro fertilisation does not improve the outcome of treatment, and we recommend that this procedure is not undertaken prior to a first cycle of in vitro fertilisation.

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