Abstract Details

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Abstract title:

Should we care about polyps detected during the follicular phase of intrauterine insemination treatments?

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Study question:

Does the suspicion of an endometrial polyp during follicle tracking for intrauterine insemination (IUI) change the cumulative reproductive outcome of these treatment cycles?

Summary answer:
The detection of a polyp during follicle tracking for IUI does not seem to decrease cumulative live birth rates (CLBR).

What is known already:
Endometrial polyps are a frequent uterine finding in infertility patients. Based on available evidence, there seems to be a benefit of removing a polyp when detected prior to intra-uterine insemination (IUI), regardless of its size, even though up to 27% of all small polyps (<10mm) regress spontaneously. However, the potential benefit of cancelling an IUI when a polyp is detected for the first time during follicle tracking is unknown.

Study design, size, duration:
In this retrospective cohort study, all patients who underwent an IUI between May 2009 and March 2017 were included, all having a normal baseline uterine ultrasound and/or hysteroscopy. In 160 out of 6127 patients (2,6%) or in 415 out of 14498 cycles (2,8% of cycles) a polyp was diagnosed during the follicular phase. Each patient was included only once and performed a maximum of 3 consecutive IUI cycles.

Participants/materials, setting, methods:
We compared the CLBR between women with and without newly-diagnosed polyps using multivariable Cox regression analysis in order to adjust for the following potential confounding factors: female age, body mass index (BMI), use of gonadotrophins for ovarian stimulation, peak estradiol level, number of follicles >14mm prior to the administration of human chorionic gonadotropin (hCG), as well as sperm concentration and motility.

Main results and the role of chance:
Female age was significantly higher in the polyp group, compared with the control group (33.1±4.7 versus 34.9±4.9, p<0.001). Conversely, other relevant baseline characteristics did not vary significantly between both study groups, namely BMI (24.0±4.7 versus 24.3±4.2), sperm concentration after capacitation (32.7±40.4 versus 31.7±41.2), sperm motility after capacitation (99.9±11.4 versus 99.5±6.5), peak estradiol levels (380.0±367.2 versus 380.5±350.1), number of follicles >14mm (1.3±0.7 versus 1.3±0.8) and use of gonadotrophins (13.8% versus 10.8%). The unadjusted CLBR after up to 3 IUI cycles for the women with and without a polyp were 18.4% versus 26.0% (p=0.066), showing a deleterious effect of the presence of a recently-diagnosed polyp of borderline significance. However, after performing multivariate Cox regression analysis, the presence of a polyp detected during treatment no longer seemed to influence CLBR significantly (adjusted hazard-ratio 0.839, 95% confidence interval 0.568-1.239).

Limitations, reasons for caution:
The presence of biases related to the retrospective design of this study cannot be excluded. Furthermore, as in-cycle hysteroscopies were not performed (to avoid a potential hindering effect on the

IUI cycle outcome), one cannot exclude the possibility of misdiagnosis associated with the sole use of pelvic ultrasound.

Wider implications of the findings:
This study, which included a large dataset, may be reassuring for physicians and patients, as the new detection of a polyp during the follicular tracking for an IUI cycle did not seem to be associated with a reduction in CLBR, if left untreated.

Trial registration number:
B.U.N. 143201836012

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