

Surgery versus conservative management of endometriomas in subfertile women. A systematic review

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Abstract

Introduction: Endometriomas are present in up to 44% of all women with endometriosis and their presence have a detrimental effect on fertility. However, it is still controversial whether or not endometriomas should be surgically removed before assisted reproduction technology (ART).

Purpose: To evaluate whether surgical stripping of endometriomas in subfertile women improves the chance of a live birth. Secondary outcomes were impact on ovarian reserve and pain.

Methods: We conducted a systematic review and metaanalyses adhering to the PRISMA guidelines. Summary of findings tables were developed using the GRADE approach. We searched Medline and Embase and two reviewers performed the screening.

Results: Out of 686 manuscripts we included one RCT and nine retrospective cohort studies most of low quality. Compared with women with no surgical treatment undergoing IVF/ICSI the odds ratio (OR) for live birth after surgery was 0.87 (95% CI; 0.64-1.18, six studies, $I^2 = 3\%$; $\oplus\bigcirc\bigcirc\bigcirc$, VERY LOW quality). Antral follicle count in the surgery group was on average 2.09 lower than in the control group (95% CI; -4.84 - 0.67, four studies).

Conclusion: Our findings show that surgery offers no advantage in relation to live births and might harm the ovarian reserve. Surgery might also cause complications and we therefore suggest avoiding surgery in cases where infertility is the only indication.

Fig. 1

LIVE BIRTH – after sensitivity analysis

