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ADMINISTRATIVE INFORMATION

Support - Zhejiang Traditional Chinese Medicine Administration.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202590055

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 September 2025 and was last updated on 14 September 2025.

INTRODUCTION

Review question / Objective The review aims to identify risk factors associated with recurrence of endometriosis and pregnancy gain after surgery.
P: Ovarian endometriosis patients after surgery I: No artificial intervention C: Patients without recurrence or without pregnancy O: Recurrence of endometriosis or pregnancy S: Randomized controlled study, cohort study or case-controlled study.

Rationale Ovarian endometriosis is a refractory disease in gynecology that has high recurrent rate and infertility rate. We aim to summarize published articles associated with the topic to evaluate risk factors. This can help clinical practice in the future.

Condition being studied Endometriosis, also known as endometrioma, is a complex disease with unclear etiologies. The manifestations of the disease include dysmenorrhea, infertility and pelvic

pain. Surgery and hormone therapy are the main therapies of endometriosis.

METHODS

Search strategy MeSH terms of "risk factors", "endometriosis", "pregnancy", "recurrence" and their free texts are applied. Pubmed, Embase, Web of Science, CNKI, Wanfang and Weipu are searched.

Participant or population Ovarian endometriosis patients after surgery.

Intervention No artificial intervention.

Comparator Patients without recurrence or without pregnancy.

Study designs to be included Randomized controlled study, cohort study or case-controlled study.

Eligibility criteria All articles that are associated with endometriosis recurrence risk factors or infertility risk factors are included.

Exclusion criteria: 1. Reviews, meta-analysis, thesis, editorial and other non-article publications, 2. Case report, 3. Animal studies or in-vitro studies, 4. Articles that are not written in English or Chinese, 5. Articles that are not associated with endometriosis or recurrence risk factors or infertility risk factors.

Information sources Electronic databases: Pubmed, Embase, Web of Science, Cochrane Library, CNKI, Wanfang and Weipu.

Main outcome(s) Recurrence situation or pregnancy situation.

Quality assessment / Risk of bias analysis Randomized controlled studies are evaluated by RoB 2. Non-RCT studies are evaluated by NOS scale.

Strategy of data synthesis Continuous variables are synthesized in the form of mean, standard deviation and sample sizes and analyzed by metan. Categorical variables are synthesized in the form of positive number and negative number and analyzed by metan. Effect value are synthesized and analyzed by midas.

Subgroup analysis Subgroup analysis are conducted if various variables are available in the same outcomes.

Sensitivity analysis Sensitivity analysis is conducted by metaninf if applicable.

Language restriction English or Chinese.

Country(ies) involved China.

Keywords Endometriosis; Recurrence; Pregnancy; Risk factors.

Contributions of each author

Author 1 - Xiaojing Zhao - Author 1 searched the database, selected articles and will analyze result and draft the manuscript.

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Author 2 - Yang Liu - Author 2 will selected articles.

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Author 3 - Liang Wang - Author 3 raised the idea and will revise the manuscript.

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