

# INPLASY PROTOCOL

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None declared.

## A systematic-review and meta-analysis of the efficacy of uterine artery embolization in the treatment of endometriosis

Ma, L<sup>1</sup>; Wen, BX<sup>2</sup>; Wen ZH<sup>3</sup>.

**Review question / Objective:** To compare the efficacy of uterine artery embolization (UAE) with traditional methods for treating endometriosis.

**Condition being studied:** RCTs of UAE combined with other therapies for the treatment of Ems published in Chinese or English; Patients diagnosed with endometriosis according to diagnostic criteria; uterine artery embolization was adopted in the observation group, while other treatments were adopted in the control group.

**Eligibility criteria:** Study on the treatment inconsistent with the research purpose between the observation group and the control group; Articles that are published repeatedly or with incorrect data; Articles for which outcome indicators could not be extracted.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 August 2022 and was last updated on 17 August 2022 (registration number INPLASY202280071).

### INTRODUCTION

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other treatments were adopted in the control group.

## METHODS

**Search strategy:** Databases in English were searched: PubMed, Embase, Web of Science, Cochrane Library, while databases in Chinese were searched: China Journal Full-text Database, Wanfang Database, VIP Database and China Biomedical Literature Database. The RCTs related to EMs after uterine artery embolization were retrieved from the established until June 2022. Use subject to merge search methods for free words. The search terms were: [uterine artery] [embolization endometriosis] [chocolate cyst] [Randomized].

**Participant or population:** Patients diagnosed with endometriosis according to diagnostic criteria (1231).

**Intervention:** Evaluated randomized controlled trials of UAE compared with other treatments for endometriosis.

**Comparator:** None.

**Study designs to be included:** RCTs of UAE combined with other therapies for the treatment of Ems published in Chinese or English; Patients diagnosed with endometriosis according to diagnostic criteria; uterine artery embolization was adopted in the observation group, while other treatments were adopted in the control group.

**Eligibility criteria:** Study on the treatment inconsistent with the research purpose between the observation group and the control group; Articles that are published repeatedly or with incorrect data; Articles for which outcome indicators could not be extracted.

**Information sources:** Databases in English were searched: PubMed, Embase, Web of Science, Cochrane Library, while databases in Chinese were searched: China Journal Full-text Database, Wanfang Database, VIP Database and China

Biomedical Literature Database. The RCTs related to EMs after uterine artery embolization were retrieved from the established until June 2022. Use subject to merge search methods for free words. The search terms were: [uterine artery] [embolization endometriosis] [chocolate cyst] [Randomized].

**Main outcome(s):** According to literature[14], it is considered to be effective when the clinical symptoms of the patient relieve or disappear, the pelvic mass shrinks or does not increase, and the clinical symptoms of the patient do not worsen after 3 months of drug discontinuation. Patient's clinical symptoms and signs were improved, or even worsened, and were considered invalid. 364 patients were included in the 5 studies to compare the difference in the total effective rate between the two groups, with statistically significant heterogeneity between the literatures:  $I^2=0.0\%$ ,  $P=0.995$ . Therefore, the fixed-effect model was used for analysis. The results showed that there was no significant difference in the effective rate of treatment of endometriosis with UAE and other treatment methods:  $[RR=1.13, 95\%CI(0.96,1.34), P<0.05]$  244 patients were included in the 3 RCTs, with statistically significant heterogeneity between the literatures:  $I^2=18.7\%$ ,  $P=0.292$ . Therefore, the fixed-effect model was used. Meta-analysis showed that serum CA125 level in UAE group was lower than that in the control group:  $[SMD=-0.85, 95\%CI(-1.12,-0.59)]$ ,  $P<0.05$ , indicating that the difference was statistically significant.

**Quality assessment / Risk of bias analysis:** The Cochrane ROB 2.0 was used to assess the risk of publication bias from the aspects of randomization process, deviation from established interventions, lack of outcome data, measurement of results, selective reporting bias, and total bias. It was conducted independently and cross-checked by two researchers.

**Strategy of data synthesis:** Literature screening was conducted by two colleagues independently, and the data were extracted and cross-checked. When

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differences of opinion arose, the two researchers discussed and resolved the differences with the third researcher. The extracted contents mainly include: Basic information of the literature: author, year of publication, title, and source of the article; The evaluation factors of bias risk were as follows: random method, blind method; Intervention measure; Outcome indicators.

**Subgroup analysis:** None.

**Sensitivity analysis:** None.

**Country(ies) involved:** China.

**Keywords:** uterine artery embolization; Endometriosis; Meta analysis.

**Dissemination plans:** Uterine artery embolization; Endometriosis; Meta-analysis.

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