

INPLASY PROTOCOL

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None declared.

Reproductive outcomes of ectopic pregnancy with conservative and surgical treatment

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Review question / Objective: The objective of this study was to investigate the natural pregnancy outcomes(IUP,REP) of ectopic pregnancy patients by comparing MTX versus surgery, MTX versus salpingostomy, MTX versus salpingectomy, salpingostomy versus salpingectomy, MTX versus expectant treatment.

Condition being studied: Ectopic pregnancy(EP) remains one of the most common gynecological emergencies and a leading cause of maternal death in early pregnancy, Increase infertility and repeat ectopic pregnancy. Surgical treatment is considered the gold standard treatment, but with advances in early diagnosis, such as β -hCG levels and transvaginal ultrasound, EP can be diagnosed in the early stage, and the emergency operation rate and mortality rate of ectopic pregnancy are significantly reduced, and some patients can choose to expectant treatment or medical treatment, such as methotrexate (MTX). Naveed AK et al. suggests that expectant treatment is as safe and effective as MTX in EP patients with stable hemodynamic conditions and decreased or low β -hCG levels. The overall success rate of MTX is reported to be as high as 90% when choosing good indications. There is an increasing attention to reproductive outcomes for EP patients, especially for those who want to have a child, so it is crucial to clarify the impact of each treatment modality on natural pregnancy outcome.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 February 2023 and was last updated on 07 February 2023 (registration number INPLASY202320032).

INTRODUCTION

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METHODS

Participant or population: The study subjects were patients with ectopic pregnancy who were to be conceived naturally.

Intervention: The intervention was conservative and surgical treatment(MTX,expectant treatment, salpingostomy, salpingectomy).

Comparator: MTX versus surgery、MTX versus salpingostomy、MTX versus salpingectomy、salpingostomy versus salpingectomy、MTX versus expectant treatment.

Study designs to be included: This study has collected the observational studies,

except for the reviews, case reports, and conference abstracts.

Eligibility criteria: Patients with EP in this study need to meet the following inclusion criteria: a) ultrasound indicated a tubal EP; b) hemodynamic stability; c) treated with expectant treatment、MTX or salpingostomy、salpingectomy; d) women of childbearing age with natural fertility requirements. e) The primary outcome indicators were IUP and REP. Exclusion criteria: a) ultrasound indicates not tubal pregnancy, such as ovarian pregnancy and cervical pregnancy; b) ultrasound indicates rupture of the fallopian tube; c) beyond expectant treatment、MTX or salpingostomy, salpingectomy; d) no reproduction requirements or turn to assisted reproductive technology; e) case reports, reviews, original studies with incomplete data and low quality research.

Information sources: We systematically searched PubMed, Embase, the Cochrane Library, Web of Science, and Clinical Trials for observational study(published in English).References of the original and reviewed articles were manually searched and the relevant literature was included.

Main outcome(s): The primary outcome indicators were intrauterine pregnancy(IUP) and repeat ectopic pregnancy(REP) of EP patients by comparing MTX versus surgery、MTX versus salpingostomy、MTX versus salpingectomy、salpingostomy versus salpingectomy、MTX versus expectant treatment.

Quality assessment / Risk of bias analysis: The NOS scales applied to the observational studies were used for the quality evaluation.We made forest maps and funnel plots for each study. I² was used to assess the statistical heterogeneity.if I²> 50%, defined as moderate to high heterogeneity.funnel plots were used to assess the risk of bias.

Strategy of data synthesis: The reproductive outcome measures we

assessed were IUP and REP, which were dichotomous variables, and the data were expressed by OR (95%CI). We used a random effect model (D-L method) to combine the OR values, and we made forest maps for each study. I² was used to assess the statistical heterogeneity. if I² > 50%, defined as moderate to high heterogeneity. We performed the statistical analysis using the RevMan5.3 software.

Subgroup analysis: No.

Sensitivity analysis: No.

Country(ies) involved: China.

Keywords: ectopic pregnancy; tubal pregnancy; IUP; REP; fertility; expectant treatment; MTX, salpingectomy; salpingostomy.

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