

INPLASY PROTOCOL

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None.

Outcomes of subsequent pregnancies in women following treatment of previous cesarean scar pregnancy: a systematic review and meta-analysis

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Review question / Objective: What are the outcomes of subsequent pregnancies in women following treatment of previous cesarean scar pregnancy(CSP)?

Condition being studied: Cesarean scar pregnancy (CSP) is a complication resulting from the implantation of the gestational sac in the scar of the previous cesarean section, and it is also called cesarean scar ectopic pregnancy. With the surge in the number of cesarean sections, the number of cesarean section scar pregnancy also increased. In a large survey estimated that 29.7 million (21.1%, 95% uncertainty interval 19.9-22.4) had a cesarean section pregnancy in 2015, double the number of cesarean sections (16 million [12.1%, 10.9-13.3] births). Studies have shown incidence of cesarean scar pregnancy ranged from 1:1800 to 1:2656 in total pregnancies. The widespread application of transvaginal ultrasound and the improvement of people's understanding of CSP, the diagnosis and treatment of CSP is not difficult, but the impact of subsequent pregnancy is still unclear. Therefore, whether CSP women increase the adverse pregnancy outcomes during pregnancy and perinatal period in the future pregnancy is a concern for patients and clinicians.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 April 2020 and was last updated on 15 April 2020 (registration number INPLASY202040091).

INTRODUCTION

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METHODS

Search strategy: Search: (((pregnancy[Title]) OR pregnancies[Title])) AND ((scar[Title]) OR scars[Title]) AND ((cesarean[Title]) OR caesarean[Title]).

Participant or population: Participants have been treated after diagnosis with CSP and subsequently pregnancies will be included.

Intervention: Treatments including medicine, minimally invasive surgery, surgery and methods combining above therapies.

Comparator: None.

Study designs to be included: Research designs including case series, comparative studies, and randomized controlled trials will be considered.

Eligibility criteria: Reported raw data in subsequent pregnancies of women after CSP treatment.

Information sources: PubMed database will be electronically searched from their inception to February 29th, 2020 with utilizing combinations of the relevant title for: pregnancy/pregnancies, scar/scars, cesarean/caesarean. Only article in English

language will be considered. Reference lists of original articles chosen for full-text reviews were hand-searched to find additional reports.

Main outcome(s): Reproductive outcomes of re-pregnancy after CSP treatment include normal intrauterine pregnancy, spontaneous miscarriage, RCSP.

Additional outcome(s): None.

Data management: We include all eligible studies in a qualitative synthesis. A standardized data abstraction form was used to extract data from the included studies, and another evaluator then reviewed all data items. The data will include sample size, study design, number of cases treated, final follow-up cases, treatment methods and outcomes of pregnancies. The data will be recorded in the EXCEL sheet, and the records of the details will be recorded in a separate WORD document.

Quality assessment / Risk of bias analysis: Any disagreements regarding the risk of bias assessment will be solved by a third author through discussion.

Strategy of data synthesis: We will use meta-analyses of proportions to combine data. In order to quantify the incidence of exploration results, a random or fixed-effect model was used to meta-analyze the ratios and combine the data. Random or fixed effect models were used according to the heterogeneity test results of the study. The heterogeneity between studies was explored using the I² statistic, which represents the percentage of inter-study variability due to heterogeneity rather than opportunity. The Egger and Begg-Mazumdar tests were used for publication bias. Use the ratio and summary meta-analysis functions in StatsDirect (version 3) for analysis.

Subgroup analysis: None.

Sensibility analysis: If necessary, sensitivity analysis will be carried.

Language: English.

Country(ies) involved: All the authors are from China.

Other relevant information: No.

Keywords: Cesarean scar pregnancy; Outcomes of subsequent pregnancies; Recurrence of cesarean scar pregnancy; Treatment.

Contributions of each author:

Author 1 - Project, description of results, data analysis, and writing of the article.

Author 2 - Project, description of results, data analysis, and writing of the article.

Author 3 - Project, search strategy, study selection, data extraction, article writing.

Author 4 - Project, data extraction, data analysis, article writing.

Author 5 - Study selection, data extraction, article writing.

Author 6 - Study selection, data extraction, article writing.

Author 7 - Study selection, data extraction, article writing.