INTRODUCTION

Review question / Objective: This study evaluates the association between IL-17 and IL-27 polymorphisms and the risk of recurrent pregnancy loss and preeclampsia.

Condition being studied: It was found that IL-17 was significantly increased in patients with recurrent spontaneous abortion and preeclampsia compared with normal pregnant women, while IL-27 levels were significantly higher in peripheral blood of PE patients than in normal pregnant women, suggesting that IL-17 and IL-27 may play an important role in the development and progression of immune-related pregnancy complications. Several studies have evaluated the association of IL-17 and IL-27 polymorphisms with preeclampsia or recurrent miscarriage, but there are great differences among study results.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 02 December 2022 and was last updated on 02 December 2022 (registration number INPLASY2022120007).
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**METHODS**

**Participant or population:** Patients with pre-eclampsia or recurrent miscarriage.

**Intervention:** IL-17 and IL-27 polymorphisms.

**Comparator:** Normal pregnant women.

**Study designs to be included:** case-control studies.

**Eligibility criteria:** The case group should be patients with pre-eclampsia or recurrent miscarriage and excluding miscarriages with a clear etiology such as autoimmune, reproductive tract abnormalities, and chromosomal abnormalities, and the control group should be normal pregnant women.

**Information sources:** PubMed, EMBASE, Cochrane, Web of Science, and Google Scholar.

**Main outcome(s):** The disease susceptibility.

**Quality assessment / Risk of bias analysis:** The quality of the literature will be assessed using the Newcastle-Ottawa Scale (NOS).

**Strategy of data synthesis:** RevMan 5.4.1 will be used to perform the analysis. Q statistic test and an I2 test will be performed to assess the between-study heterogeneity. When the Q test is significant (P < 0.05) or I2 > 50%, the random effects model will be used, otherwise, the fixed effects model will be used.

**Subgroup analysis:** The group will be divided into preeclampsia and recurrent spontaneous abortion groups according to the type of disease.

**Sensitivity analysis:** The Revman software will be applied to sequentially remove data from individual studies to assess the effect of individual studies on the pooled ORs.

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

**Keywords:** polymorphism; preeclampsia; recurrent pregnancy loss.

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