INPLASY

Serum chemerin and the risk of preeclampsia: a meta-analysis

INPLASY202360068

doi: 10.37766/inplasy2023.6.0068

Received: 23 June 2023

Published: 23 June 2023

Xie, Y[1]; Quan, XZ[2]; Yang, XZ[3].

Corresponding author:
Xuezhou Yang

xzyang_xych@21cn.com

Author Affiliation:
Xiangyang Central Hospital.

ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202360068

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 June 2023 and was last updated on 23 June 2023.

INTRODUCTION

Review question / Objective Whether the serum level of chemerin is different between pregnant women with and without preeclampsia?

Rationale The pathogenesis of preeclampsia is complicated, which may involve the roles of adipokine. Adipokine chemerin has been shown to be involved in more than one biological condition, including psoriatic skin lesions and retinoic acid-receptor responder 2 (RARRES2). However, there exists a dearth of a thorough assessment regarding the correlation between chemerin and PE. Consequently, we conducted a systematic review and meta-analysis to appraise the magnitude of serum chemerin in females afflicted with PE.

Condition being studied The condition of preeclampsia (PE) occurs after 20 weeks of gestation and is characterized by high blood pressure and proteinuria. Preeclampsia can have adverse effects on both the mother and the baby.

METHODS

Search strategy (1) chemerin"; and (2) "pre-eclampsia" OR "preeclampsia" OR "eclampsia" OR "PIH" OR "toxemia" OR "pregnancy-induced hypertension" OR "EPH" OR "edema-proteinuria-hypertension gestos".

Participant or population Pregnant women.

Intervention Developed preeclampsia during follow-up.

Comparator Not develop preeclampsia during follow-up.

Study designs to be included Observational studies.

Eligibility criteria Studies reported the level of blood chemerin between pregnant women with and without preeclampsia.

Information sources Medline, Web of Science, and Embase.

Main outcome(s) Circulating level of chemerin between case and control.

Additional outcome(s) None.

Data management Use excel and endnote software to manage data.

Quality assessment / Risk of bias analysis Use the Newcastle-Ottawa Scale for quality evaluation.

Strategy of data synthesis Random effects model will be used, to incorporate heterogeneity. Sensitivity and subgroup analyses may be used to explore the source of heterogeneity.

Subgroup analysis According to predefined study characteristics, such as design, timing and methods for measuring chemerin, and severity of preeclampsia.

Sensitivity analysis Sequencially exluding one dataset at a time to evaluate the influence of each study on the results of meta-analysis.

Language restriction English.

Country(ies) involved China.

Other relevant information None.

Keywords Chemerin; Preeclampsia; Adipokine; Meta-analysis.

Contributions of each author
Author 1 - Yue Xie.
Author 2 - Xiaozhen Quan.
Author 3 - Xuezhou Yang.