

RESEARCH ARTICLE

Assessment of Inflammatory Markers in Preeclampsia

¹Perna Bansal, ²I Anand Shaker, ³Anupam K Bansal, ⁴GG Kaushik

ABSTRACT

Aim: Pregnancies, including preeclampsia, are low-grade systemic inflammation which has been associated with complications. Endothelial dysfunction in preeclampsia is accompanied by elevated levels of inflammatory markers and cytokines such as high sensitivity C-reactive protein (hs-CRP), tumor necrosis factor- α (TNF- α) and interleukin-10 (IL-10). Our aim in this study is to assess the levels of these above markers in preeclampsia and to predict its severity.

Materials and methods: A case-control study was performed on 100 pregnant women with preeclampsia as cases (50 mild and 50 severe) as per clinical guidelines and 50 healthy pregnant women as controls. They were all age and parity-matched primigravidas at the third trimester of pregnancy.

Results: Significantly increased ($p < 0.001$) serum levels of hs-CRP, TNF- α and IL-10 were found in cases of mild and severe preeclamptic when compared to controls. In severe preeclamptics, all these parameters were also found highly significant in comparison to mild.

Conclusion and clinical significance: The observed high levels of hs-CRP, TNF- α , and IL-10 in preeclamptic women indicate that these markers can be used in identifying the severity of preeclampsia and it can help the clinician in their diagnosis, treatment, and management.

¹Assistant Professor, ^{2,4}Professor and Head, ³Associate Professor

^{1,2}Department of Biochemistry, Parul Institute of Medical Sciences and Research, Vadodara, Gujarat, India

³Department of Forensic Medicine, Parul Institute of Medical Sciences and Research, Vadodara, Gujarat, India

⁴Department of Biochemistry, Jawaharlal Nehru Medical College, Ajmer, Rajasthan, India

Corresponding Author: I Anand Shaker, Professor and Head, Department of Biochemistry, Parul Institute of Medical Sciences and Research, Vadodara, Gujarat, India, e-mail: prena309@gmail.com

Keywords: High sensitivity C-reactive protein (hs-CRP), Interleukin-10 (IL-10), Preeclampsia, Tumor necrosis factor- α (TNF- α).

How to cite this article: Bansal P, Shaker IA, Bansal AK, Kaushik GG. Assessment of Inflammatory Markers in Preeclampsia. Indian J Med Biochem 2018;22(2):138-142.

Source of support: Nil

Conflict of interest: None

[For Full Article Click here](#)