

Serum Cytokines Profiles in Iranian Patients with Preeclampsia

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ABSTRACT

Background: Preeclampsia is a major cause of mortality and morbidity and is also a leading cause of preterm birth and intrauterine growth retardation. Several studies have reported abnormal levels of cytokines in women with preeclampsia. **Objectives:** To detect serum levels of various cytokines in pregnant women with and without preeclampsia in the third trimester of pregnancy. **Methods:** Thirty patients with preeclampsia and thirty normal pregnant women were enrolled in the study. Blood samples were taken and serum levels of IFN γ , IL-12p70, IL-18, IL-15, IL-4 and IL-10 were measured by enzyme-linked immunosorbent assay (ELISA). **Results:** Preeclamptic women had significantly increased levels of circulating IL-12p70 ($p < 0.05$), IL-18 ($p < 0.001$), IL-4 ($p < 0.001$), IL-15 ($p < 0.05$) and IFN γ ($p < 0.001$). By contrast, circulating levels of IL-10 were not significantly different between the two groups. **Conclusions:** The present study supports the hypothesis of altered immune response in preeclampsia and suggests that dysregulation of cytokine expression occurs in preeclampsia with increased levels of IFN γ , IL-12p70, IL-15, IL-18 and IL-4.

Keywords: Preeclampsia, Cytokines, ELISA