

The association of IL-17 and PIGF/sENG ratio in preeclampsia and adverse pregnancy outcomes

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Objective

The aim of the study was to assess the role of concentrations of Interleukin-17 (IL-17), Placental Growth Factor (PIGF), soluble Endoglin (sENG), as well as PIGF/sENG ratio in pregnancy complicated by pre-eclampsia (PE) and normal pregnancy.

Methods

The concentrations of IL-17, PIGF and sENG were measured with the use of immune-enzymatic methods.

Results

. The concentrations of IL-17 were significantly higher in PE patients when compared to control patients. In the group of patients with PE, the levels of IL-17 positively correlated with systolic blood pressure. On the other hand, IL-17 negatively correlated with neonatal birth weight. The concentrations of PLGF were significantly lower and sENG significantly higher in studied patients when compared to controls. The PIGF/sENG ratio in PE group was significantly lower when compared to healthy third trimester pregnant patients. In the study group the negative correlations have been observed between sENG concentrations and thrombocyte levels.

Conclusion

The higher concentrations of IL-17 in PE can suggest its role as an inflammatory agent in the pathogenesis of the syndrome. Moreover, the negative correlation between IL-17 and neonatal birth weight can suggest the role of the cytokine in the development of fetal growth restriction (FGR) associated with PE. It seems possible that IL-17 can be useful marker of the risk of FGR in pregnancy complicated by PE. Furthermore, the results suggest the potential role of sENG and PIGF/sENG ratio in the prediction of adverse outcome such as: HELLP syndrome and DIC.