



Correlation of pro and anti inflammatory cytokines in different grades of pre-eclampsia

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Objective

Pre-eclampsia is new onset hypertension during pregnancy with proteinuria. Cytokines also appear to contribute to the development of this pathological condition. The aim of this study was to evaluate the role of cytokines in pre-eclampsia and to study the relationship between levels of cytokines in correlation with the severity of the disease.

Methods

This cross-sectional study included 100 women with pre-eclampsia and 50 healthy pregnant women. Their blood samples were analyzed for proinflammatory (IL-1 β , IL-2, IL-6, IL-8, TNF-a) and anti-inflammatory (IL-4, IL-10) cytokines in preeclampsia of various severity in the third trimester of pregnancy.

Results

There was increase in the levels of pro inflammatory cytokines and a change in the ratio of oppositional pools. In severe pre-eclampsia, there was a reduction in the concentration of the anti-inflammatory cytokines IL-4 and IL-10.

Conclusion

We conclude that pre-eclampsia is associated with different levels of circulating inflammatory cytokines depending of severity of disease, which points towards the role of inflammatory components.