

Original Paper

Comparison of serum androgens and progesterone in preeclampsia and normal pregnancy

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Abstract

Background and Objective: Androgens are among the causative factors in preeclampsia. This study was done to compare the serum androgens and progesterone in preeclampsia and normal pregnancy.

Materials and Methods: This case-control study was done on 30 preeclamptic and 30 healthy pregnant women in Gorgan, Iran. Higher or equal to 140/90 mmHg and proteinuria equal or more than +1 in dip stick test in the third trimester of pregnancy were considered as the diagnostic criteria of preeclampsia. Progesterone, free and total testosterone, and dehydroepiandrosterone sulphate (DHEA) were measured by ELISA method.

Results: Total testosterone level was 1.8 ± 0.3 ng/ml and 1.3 ± 0.9 ng/ml in cases and controls, respectively. This difference was not significant. Progesterone was lower in cases (95 ± 46.9 ng/ml) than in controls (165.4 ± 75 ng/ml) ($P < 0.01$). Free testosterone and DHEA were 5.6 ± 2.3 ng/ml and 1 ± 0.5 ng/ml in cases, respectively which was significantly higher than the controls (3.2 ± 1.5 ng/ml and 0.7 ± 0.4 ng/ml, respectively) ($P < 0.045$).

Conclusion: Serum level of free testosterone, DHEA and progesterone increased and reduced respectively in preeclampsia.

Keywords: Preeclampsia, Total testosterone, Free testosterone, DHEA, Progesterone

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