



Comparison of serum leptin levels in pregnant women with pre-eclampsia and that of those with normal blood pressure who were referred to Valiasr Hospital of Zanjan, Iran

Dabirioskoei A, Mazloomzade S, Amirmoghadam HR, Akbarshahi A, Eskandari M
Zanjan University of Medical Science, Zanjan, Iran

Objective

After many of researches, the cause of hypertension during pregnancy period has not been revealed. The disorders related to hypertension still remain among the most important unresolved maternity problems. This study was conducted to study the relationship between serum leptin levels and pre-eclampsia in Valiasr Hospital of Zanjan from the 20th March 2005 to the 21st March 2006.

Methods

This cross-sectional study comprised 2 groups of pregnant women in their last trimester. Each group consisted of 30 cases. The case group had BP>140/90, proteinuria >300 microgram /24h or +1 and more with dipstick. The control group had normal blood pressure. The samples were analyzed with leptin kit using ELISA method. Independent t-test was used to compare the means by SPSS.

Results

Despite a higher serum leptin levels mean in the control group, the difference was not significant (57.92 ± 33.6 and 45.8 ± 34.6 pg/dl respectively, $P=0.18$). Regarding the serum leptin level means in the group with a BMI>29, there was not a significant difference between case and control groups (51.12 ± 39.72 and 56.75 ± 34.84 pg/dl respectively, $P=0.64$) but in those with a BMI<29, it was higher in the control group significantly (36.75 ± 22.1 and 60.26 ± 32.51 pg/dl respectively, $P=0.07$).

Conclusion

The results of this study showed that there is no relationship between pre-eclampsia and increased serum leptin levels. It seems there is a need for more studies with prospective designs and a larger sample size to clarify the relationship and association between serum leptin level and pre-eclampsia.