

P48. Serum Visfatin Levels in Women with Polycystic Ovary Syndrome

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Context: The effect of visfatin on insulin resistance (IR) development has been increasingly researched.

Objective: The aim of our study was to compare the serum levels of visfatin between insulin resistant and non-insulin resistant women with polycystic ovary syndrome (PCOS), as well as to assess its relationship with certain clinical and metabolic parameters.

Patients and methods: The study comprised of 76 young PCOS women at mean age of $24,37 \pm 5,1$ years and with mean BMI $26,09 \pm 5,74$ kg/m². In all the participants the following measurements and laboratory tests were performed: weight, height, waist and hip circumferences, oral glucose tolerance test (OGTT) with blood samples for glucose (GLU) and insulin (IRI) measurements obtained 0, 60 and 120 minutes after oral 75 g glucose administration, serum levels of total cholesterol (TC), HDL-cholesterol (HDL-C), triglycerides (TG) and visfatin; systolic (SBP) and diastolic blood pressure (DBP). Body mass index (BMI), waist-to-hip ratio (WHR), homeostasis model of insulin resistance index (HOMA-IR) = $(\text{GLU } 0'(\text{mmol/l}) \times \text{IRI } 0'(\mu\text{IU/ml})/22,5)$ and Matsuda index = $\{10000/\sqrt{(\text{GLU } 0'(\text{mg/dL}) \times \text{IRI } 0'(\mu\text{IU/ml})) \times (\text{mean GLU}(\text{mg/dL}) \times \text{mean IRI}(\mu\text{IU/ml}))}\}$ were calculated. We determined a presence of IR as $\text{IRI } 0' > 12 \mu\text{IU/ml}$ and/or values of IRI during OGTT $> 100 \mu\text{IU/ml}$ and/or $\text{GLU } 0'/\text{IRI } 0' < 0,333$.

Results: Higher values of weight, BMI, waist and hip circumferences; GLU 0', 60', 120' and IRI 0', 60', 120'; TG and DBP were determined in the insulin resistant PCOS women as compared to those without IR. We found significantly higher visfatin levels in the PCOS women with IR. Visfatin was found to correlate positively with DBP and negatively with HDL-C. There was an inverse relationship between visfatin and Matsuda index.

Conclusion: The higher levels of visfatin in the insulin resistant PCOS women and the aforementioned correlation between visfatin and Matsuda index, HDL-C and DBP, demonstrate a role of this adipokine in the development of metabolic syndrome in PCOS.

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