

P52. Serum levels of soluble E-selectin in polycystic ovary syndrome

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Context: Evaluation of soluble E-selectin levels has been recently a subject of great scientific interest in order to better understand the pathophysiological mechanisms of atherosclerosis.

Objective: to compare the serum levels of soluble E-selectin between women with polycystic ovary syndrome (PCOS) and normal weight, overweight PCOS women and PCOS women with I-st degree of obesity, as well as to assess its relationship with clinical and metabolic parameters.

Materials and methods: The study included 76 PCOS women divided according to their body mass index (BMI) into PCOS with normal weight (BMI 18.5-24.9 kg/m²), overweight PCOS women (BMI 25.0-29.9 kg/m²) and PCOS women with I-st degree of obesity (BMI 30.0-34.9 kg/m²). The following measurements and laboratory tests were conducted: weight, height, waist and hip circumferences, basal glucose (GLU0') and insulin (IRI0') levels, serum concentrations of total cholesterol (TC), HDL-cholesterol (HDL-C), triglycerides (TG) and sE-selectin; systolic (SBP) and diastolic blood pressure (DBP). BMI, waist-to-hip ratio (WHR) and homeostasis model assessment insulin resistance index (HOMA-IR) were calculated.

Results: We established significantly higher serum levels of sE-selectin in the PCOS women with I-st degree of obesity compared to those in the PCOS women with normal weight. sE-selectin showed a positive correlation with age, weight, BMI, waist circumference, IRI0', HOMA-IR and a reverse one with HDL-C. Using linear regression analysis, we found that HOMA-IR was predictive of sE-selectin levels in the PCOS women.

Conclusions: The higher sE-selectin levels in the obese insulin resistant women with PCOS suggested a presence of endothelial dysfunction. It seems that insulin resistance (determined by HOMA-IR), which is more prominent in obesity, might be a predictor of sE-selectin levels in the obese PCOS women.

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