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P17. EFFECTS OF THE MENOPAUSAL HORMONAL THERAPY ON INSULIN SENSITIVITY IN MENOPAUSAL WOMEN WITH THYROID DYSFUNCTION

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CONTEXT: Body mass index is the major indicator to predict insulin resistance in obese women. However, the risk factors of insulin resistance in non-obese women remains debatable.
OBJECTIVE: The purpose of the study was to evaluate the effect on insulin sensitivity of menopausal hormone therapy (MHT) in mono-phase mode among post-menopausal women with thyroid dysfunction.
METHODS: A total of 68 non-obese postmenopausal women (BMI<25) were divided into 2 clinical groups. The homeostasis model assessment insulin resistance index (HOMA) was used as indicator of insulin resistance. The group 1 included 25 women with insulin resistance (HOMA>2.15) and the group 2 consisted of 43 patients without insulin resistance (HOMA<2.15) were evaluated and compared.
RESULTS: There is no difference in age and BMI between investigated groups was observed. Although, the group of women with insulin resistance associated with higher risk of metabolic syndrome than the group of women without insulin resistance. The first group (IR+) presented with higher serum triglycerides (p=0.003), LDL (p=0.008) and lower serum HDL (p=0.003) levels than second group (IR-). The hormonal treatment in mono-phase mode among women with steroid deficiency in postmenopause caused a significant decrease in HOMA-IR, that is, improved insulin sensitivity. Similarly, a transient decrease was observed for plasma levels of C-peptide after the treatment. Sex hormone-binding globulin (SHBG) was related to HOMA-IR. The association with HOMA-IR grew stronger after the treatment. Multivariate regression was used to evaluate the association of HOMA with age, BMI, testosterone, SHBG and thyroid stimulating hormone.
CONCLUSIONS: Serum thyroid stimulating hormone level is the major predictor for insulin resistance in non-obese women. Non-obese women with insulin resistance presented with higher prevalence of metabolic syndrome.
The hormonal treatment in mono-phase mode caused a decrease in insulin resistance.

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