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P5. THE HORMONAL DISTURBANCES, PHYSICAL CHARACTERISTICS AND METABOLIC DIFFERENCES IN PREMENOPAUSAL AND POSTMENOPAUSAL WOMEN WITH AN EXCESS WEIGHT.

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CONTEXT: The hormonal changes during menopause are associated with an increased risk of metabolic and cardiovascular diseases. Since the post-menopausal modifications have not been clearly investigated in women with metabolic disturbances, we evaluated the influences of menopausal status on physical, hormonal and biochemical characteristics in the groups of premenopausal and postmenopausal women with an excess weight.
OBJECTIVE: The purpose of this study was to undertake to evaluate the influences of menopausal status on physical, hormonal and biochemical characteristics depending on weight and age of menopause.
METHODS: We studied 46 female outpatients: 23 pre-menopausal women with an excess weight (Body mass index – BMI 27.3 +/- 0.35, age 44.6 +/- 0.65), 23 post-menopausal women with an excess weight (Body mass index – BMI 28.5 +/- 0.57, age 55.2 +/- 0.82). All the subjects were free from hypertension, diabetes or impaired glucose tolerance (IGT). Anthropometric parameters, body composition,
17 beta-estradiol, LH, FSH, androstenedione, SHBG and free testosterone determined. Free androgen index (FAI) and insulin resistance index (HOMA) calculated.
RESULTS: The results of this study showed that in comparison with pre-menopausal women with an excess weight, post-menopausal women with an excess weight had higher values of waist circumferences ($p < 0.02$). Total and LDL-cholesterol were high in post-menopausal women with an excess weight, whereas in the obese subjects they were already elevated in the premenopausal period. The values of insulin resistance index (HOMA) were high in post-menopausal women with an excess weight. SHBG levels declined and FAI increased in obese post-menopausal women in comparison with obese pre-menopausal women. SHBG levels showed an inverse correlation with BMI, waist and waist-to-hip ratio (WHR), while FAI positively correlated with waist values.
CONCLUSION: The menopausal status of uncomplicated women with an excess weight is associated with a greater abdominal fat deposition, with higher values of insulin resistance index (HOMA) and with higher values of free androgen index, which may be considered as significant factors of cardiovascular risk.

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