

P74. Serum Sex Hormone Binding Globulin (SHBG) Relation with Different Components of Metabolic Syndrome in Women with Polycystic Ovary Syndrome

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Sex hormone binding globulin (SHBG) is demonstrated to be decreased in subjects with metabolic syndrome (MetS). The aim of the present study was to investigate the association of SHBG in relation to MetS components among women with polycystic ovary syndrome (PCOS). This cross-sectional study was carried out among 89 female patients aged >40 years. Metabolic syndrome was defined using International Diabetes Federation (IDF) criteria. Fasting blood glucose (FBG), insulin, and lipid parameter were measured. Gonadal hormones, namely total testosterone, luteinizing hormone (LH), follicle-stimulating hormone (FSH), and SHBG were determined using chemiluminescent immunoassay. The SHBG levels of the MetS group was significantly lower than non-MetS group 22.08 ± 9.8 nmol/l vs. 49.53 ± 25.6 nmol/l; $p=0.013$. As the MetS score increases, SHBG and HDL levels decrease while weight, BMI, waist circumference, FBG, insulin, TC, and TG levels increase. SHBG correlated with age, BMI, TG, HDL, TT, free testosterone, and bio-available testosterone. The mean serum SHBG levels gradually declined with the addition of MetS components in PCOS women. TT, free testosterone, and bio-available testosterone remained independently associated with SHBG by multivariable regression analysis.

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