

### P53. Leptin And Galanin-like Peptide (GALP) Levels in Women With Polycystic Ovary Syndrome (PCOS)

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**Objective:** To compare leptin and GALP levels between women with and without PCOS and to analyze the correlation between leptin, GALP and PCOS-related hormonal and metabolic disturbances.

**Patients and methods:** The study included 47 normal weight PCOS women, and a control group of 22 clinically healthy women, corresponding in age and BMI to the patients with PCOS. Circulating levels of luteinizing hormone (LH), follicle-stimulating hormone (FSH), testosterone (T), sex-hormone binding globulin (SHBG), thyroid stimulating hormone (TSH), prolactin, fasting insulin, leptin and GALP were measured.

**Results:** There were no significant differences in age ( $p=0.07$ ), BMI ( $p=0.23$ ) and WC ( $p=0.07$ ). LH levels and the LH/FSH ratio were significantly higher in the PCOS group compared to controls ( $p=0.002$ ;  $p=0.001$ ), but no significant difference was found in FSH ( $p=0.35$ ), PRL ( $p=0.80$ ) or TSH ( $p=0.18$ ) levels between the two groups. Women with PCOS also had significantly higher glucose levels ( $p=0.027$ ), but no significant differences were observed in insulin levels ( $p=0.57$ ) and HOMA-IR values ( $p=0.44$ ). T and FAI score ( $p=0.035$ ;  $p=0.012$ ) were significantly higher, whereas SHBG levels were lower ( $p=0.039$ ) in the PCOS group. GALP and leptin levels were higher ( $p=0.019$ ;  $p=0.004$ ) in the PCOS group. GALP levels were positively correlated only with WC ( $r=0.355$ ;  $p=0.021$ ). There was a borderline positive dependence between GALP and leptin levels ( $r=0.278$ ;  $p=0.059$ ). **Conclusions:** Our results indicate that GALP and leptin are increased in women with PCOS and positively associated with the metabolic disturbances, accompanying. We suggest that leptin and GALP may be involved in the pathogenesis of PCOS.

**Key Words:** PCOS, Leptin, GALP

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