



Evaluation of physical attributes, clinical symptoms, and biochemical markers in women presenting with polycystic ovarian syndrome

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Abstract: Polycystic Ovarian Syndrome (PCOS) is the most common cause of secondary amenorrhea, but yet is mostly misdiagnosed. The current recommendation for its diagnosis requires the measurement of free testosterone, which is rather challenging and resource-consuming. The present study aimed at assessing the relationship between various biochemical and clinical signs and symptoms and PCOS as an attempt to predict its diagnosis.

Methods: Patients were screened for secondary amenorrhea before being invited to participate in this study. Once the diagnosis is confirmed, clinical and biochemical assessments were undertaken and blood samples were collected for this purpose. Several previously validated scales were utilized to assess acne, hirsutism, and the psychological wellbeing of the patients. Bivariate and multivariate statistical analyses were conducted to assess the relationship between different variables and PCOS outcome.

Results: One hundred and seventeen patients were enrolled in this study. Out of the total, sixty five (47.86%) were confirmed to have PCOS. Women diagnosed with PCOS had a significantly higher average of BMI, WHR, blood glucose, lipid profile, LH/FSH ratio, blood pressure and depression scores, as compared to women with other causes of secondary amenorrhea. Multivariate logistic regression showed that women with higher BMI and WHR, dyslipidemia, acne, hirsutism, higher LH/FSH ratio, depression, hypertension and hyperglycemia are more likely to have PCOS as a diagnosis.

Conclusions: These clinical and biochemical parameters could predict the possibility of having PCOS among Iraqi women. These findings offer a simple and practical guideline to raise the suspicion about PCOS diagnosis among Iraqi women.