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Evaluation of anthropometric patterns in women with polycystic ovarian syndrome; at Teaching Hospital Jaffna.

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Background: Polycystic Ovary Syndrome (PCOS) is one of the endocrine metabolic disorders. Evaluation of the association between anthropometric measurements in the PCOS women is crucial to understand the potential relationship. The relationship may offer the insights of metabolic risks, reproductive health, and overall well-being, aiding in tailored interventions and improve healthcare strategies of PCOS women.

Objective: To assess the anthropometric patterns in women diagnosed with PCOS at Teaching Hospital Jaffna.

Methods: This is a descriptive cross-sectional study. Convenient sampling method was used. Women diagnosed with PCOS (n=125) during the clinical visit through ultra sound scanning were recruited based on Rotterdam criteria. Serum triglyceride level was measured by enzymatic method. HDL-C was measured by precipitation method. The weight, height, waist circumference, hip circumference was measured during the clinical visit according to standard protocols, and the subsequent values of BMI, WHR, WHtR and VAI were calculated. Descriptive analysis and chi squared test were performed to analyse the data. Ethical approval was obtained by Ethical Review Committee, Faculty of Medicine, University of Jaffna.

Results: The mean BMI of the sample was 27.75 (± 5.69) kg/m². Among them, 35.2% and 48% of the PCOS women were overweight (23.0-27.5 kg/m²), and obese (≥ 27.5 kg/m²) respectively. Around 60% (n=75) of the women had increased WHR (>0.85) with the mean WHR 0.92 (± 0.07). The majority of PCOS women (77.6%) had increased WHtR (≥ 0.5) with the mean WHtR 0.58 (± 0.06). Mean VAI of total PCOS women was 1.98 (± 1.23). Increased (>4.28) VAI was observed only in 8% (n=10). Significant association between BMI and WHR (p=0.034); BMI and WHtR (p<0.001) were observed. Further, WHR had significant association with WHtR (p<0.001).

Conclusions: The study highlights that the majority exhibit increased BMI, WHR, WHtR and normal VAI, emphasizing the need for targeted preventive measures and awareness among PCOS women.