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Prevalence of Dyslipidemia in Women with Polycystic Ovarian Syndrome Attending Teaching Hospital Jaffna

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Background: Polycystic Ovarian Syndrome (PCOS), a common endocrine disorder of women, often associated with dyslipidemia which increase the risk of cardiovascular diseases. Understanding and preventing dyslipidemia in PCOS women is crucial for improving their overall health.

Objective: To determine the prevalence of dyslipidemia among women with PCOS attending Teaching Hospital Jaffna

Methods: This was an analytical cross-sectional study. Convenient sampling method was used. Women diagnosed with PCOS (n=125) through ultra sound scanning were recruited based on Rotterdam criteria from Gynaecology and Subfertility clinics of teaching hospital Jaffna. Post-menopausal women and Females under 18 years were excluded. Height and weight were measured by standard methods; Serum Total Cholesterol (TC), Triglyceride (TG), by enzymatic method; HDL-Cholesterol (HDL-C) by precipitation method were measured. LDL-Cholesterol (LDL-C) was calculated by Friedewald formula. The data were analyzed using SPSS version 25.0.

Results: The mean±SD age of the women was 29.02±5.46 years. Among them majority were unemployed (66.4%) and married (88.8%). The mean±SD Body Mass Index of the women was 27.75±5.69 kg/m^2, which was in the obese level ($\geq$27.5 kg/m^2). Of all participants, elevated levels of TG ($\geq$1.71 mmol/L, 12%), TC ($\geq$5.18 mmol/L, 41.6%), LDL-C ($\geq$2.60 mmol/L, 89.6%), and 91.2% were with low HDL-C ($\leq$1.55 mmol/L). The most common abnormality was raised LDL coupled with low HDL (82.4%). Combinations of all four abnormal lipid parameters were observed only in 5.6% of the women while only 1.6% had all measured lipid levels at normal levels.

Conclusions: The study underscores the high prevalence and varied dyslipidemia patterns among PCOS women, with 98.4% exhibiting at least one type of dyslipidemia pattern, particularly elevations in LDL-C and reductions in HDL-C. Further investigation into factors contributing to dyslipidemia high incidence; customized management and awareness is needed for early detection of cardiovascular diseases in PCOS women.

Keywords: Dyslipidemia, Polycystic ovarian syndrome, Prevalence