



SUPPLEMENT ISSUE

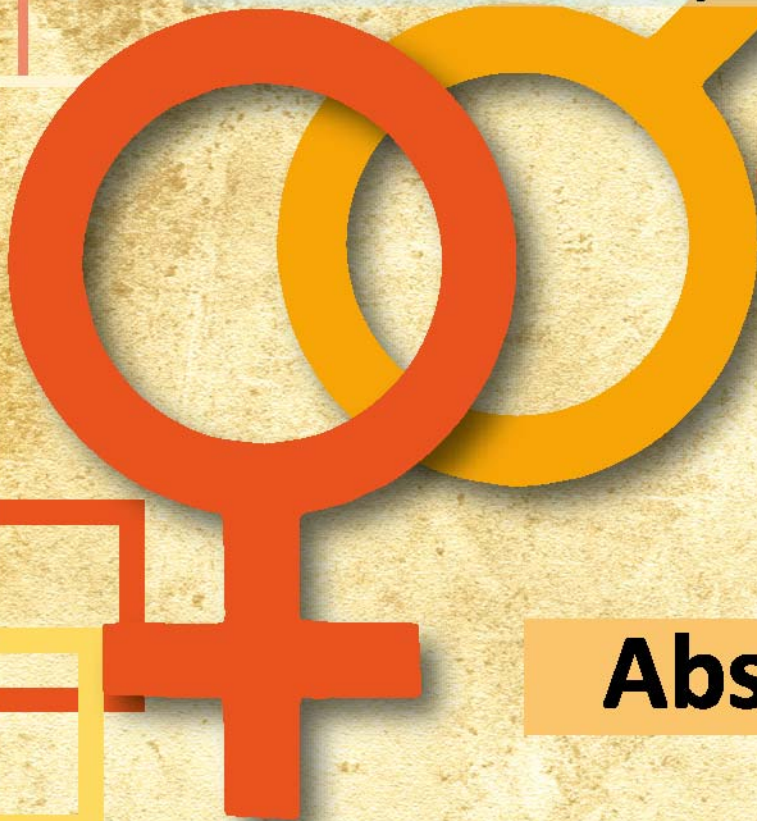
SLJOG

The Sri Lanka Journal of Obstetrics and Gynaecology

57th ANNUAL ACADEMIC CONGRESS 2024

30th August to 1st September 2024

"Quality Healthcare Through Standards in Training and Service Delivery" - A right of all women.



Abstracts

**CARDIOVASCULAR RISK ASSESSMENT IN OBESE PCOS WOMEN
BASED ON LDL/HDL RATIO**

Vijayakumar, G¹, Balendrarajah, K¹, Murugathas, V¹, Arasaratnam, V¹, Muhunthan, K²

¹Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka

²Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Jaffna, Sri Lanka

Introduction & Objective

To assess cardiovascular disease (CVD) risk, the LDL/HDL ratio is one of the markers. Obesity aggravates polycystic ovarian syndrome (PCOS) and is linked to an increased risk of CVD complications. The objective of the study was to evaluate LDL/HDL ratio in obese PCOS women attending Obstetrics and Gynaecology Clinic, Teaching Hospital, Jaffna.

Methods

An analytical cross-sectional study with a convenient sampling method was used. Among the 125 PCOS women recruited from the Obstetrics and Gynaecology Clinic, Teaching Hospital, Jaffna. 60 women were identified as obese. The weight & height of the obese women were measured, and BMI was calculated. Based on New Asian Guidelines, Obese women were categorised into Obesity Class I (BMI 27.5- 29.9 kgm⁻²), Class II (BMI 30.0- 34.9 kgm⁻²) and Class III (BMI ≥35 kgm⁻²). Fasting blood samples were analysed for serum Total Cholesterol, Triglycerides (enzymatic methods) and HDL-Cholesterol (HDL-C; precipitation method). The LDL-Cholesterol (LDL-C; Friedwald equation) and LDL/HDL ratio were calculated. The LDL/HDL ratio was classified into normal (≤2.5) and elevated (>2.5) categories. Ethical Review Committee, Faculty of Medicine, University of Jaffna gave ethical approval. The data were analysed by SPSS version 25.

Results

The mean BMI and LDL/HDL ratio of the women were 32.34 (±4.27) kgm⁻² and 3.63(±1.43) respectively. The PCOS women belonged to obese Class I, II and III were 31.67 (19nos.), 51.67 (31nos.), and 16.67% (10nos.) respectively. Among them, 25% and 75% had normal and elevated LDL/HDL ratios. The number of women with normal and elevated LDL/HDL ratios observed in Class I were 3 & 16 nos.; Class II were 11 & 20 nos. and Class III were 1 & 9 nos. respectively. When the LDL/HDL ratios of PCOS women who had normal values were compared between Class I & II women (p = 0.265), Class I & III women (p = 0.907) and Class II & III women (p = 0.241) showed no significant difference. Similarly, LDL/HDL ratios of the PCOS women who had elevated values were compared between Class I & II (p= 0.306), Class I & Class III (p= 0.963) and Class II & Class III (p= 0.597) revealed no significant difference.

Conclusion

Majority of obese PCOS women belonged to different classes had both normal and elevated LDL/HDL Ratios with higher numbers having elevated ratios. However, there was no statistically significant difference between the different classes of Obese PCOS women.