C04
Atherogenic index among over nourished adolescents attending National schools in Jaffna zonal division

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The prevalence of childhood obesity is increasing rapidly. Obesity increases the risk of heart disease because of its negative effect on lipid profile. Atherogenic Index of Plasma (AIP) is a strong marker to predict the risk of cardiovascular diseases. Our aim of the study was to determine Atherogenic Index among over-nourished Adolescents Attending National Schools (n=4) in Jaffna Zonal division. A descriptive cross sectional study was used. Anthropometric measurements and lipid profile were obtained. AIP was calculated based on the formula given by AIP= Log[TAG/HDL-C]. A total of 2457 students [57% (n=1393) boys] were selected. The Mean BMI ($\pm$SD) of total population was 18.6 ± 3.6 kg/m^2. Among them (n=2457) the prevalence of over-nourished and under-nourished adolescents were 9.5 and 13 % for females and 13.4% and 23% for males respectively. Among the over-nourished (Overweight and obese) (n=120 students), 45 students (37.5%) have responded. The Mean value of BMI, Waist circumference of over nourished students (n=45) was 26.5 ± 3.27 kg/m^2 and 89.90 ± 8.02 cm respectively. The mean ($\pm$SD) value of Triacylglycerol was 90.35 ($\pm$ 43.09) mg/dL. In this study, 48.9% (n=22) had high AIP (> 0.312). The mean value of AIP was higher in females [0.33 ($\pm$0.24)] than males [0.24 ($\pm$0.23)]. The risk on waist circumference was high among over-nourished and it was significantly correlated with AIP and BMI ($p <0.05$). The Study revealed that, the AIP was high among over-nourished adolescents. The risk of developing cardiovascular diseases was increasing with waist circumference and BMI. Also females showed higher risk for cardiovascular disease than that of males.