



▼ FACULTY ABSTRACTS

F - 05 : COMPARATIVE STUDY OF THE ESTIMATION OF LDL CHOLESTEROL BY THE DIRECT METHOD AND FRIEDEWALD EQUATION IN SECONDARY HYPERLIPIDEMIA

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Aim & Objective: The objective of the study is to measure the difference between the levels of LDL by Direct method versus Friedewald equation.

Methodology: The study includes 30 patients and 30 controls in the age of 25 – 75 years of both sexes. Fasting blood samples were collected and estimated Total Cholesterol (TC), Triglycerides (TG), Low Density Lipoprotein (LDL-C) cholesterol and High density lipoprotein (HDL) cholesterol, LDL cholesterol by direct method and by Friedewald's formula (FW).

Result: There is a significant difference between LDL Direct and LDL-FW at triglyceride range of 1 – 100, (p= 0.01), 201 – 300 (p= 0.01) and no significant difference

(p= 0.9) at 101 – 200, (p= 0.3) at 301 – 400 and (p= 0.2) at >400. There is a significant difference between LDL Direct and LDL-FW (p= 0.01) at total cholesterol range of 200 – 249 and no significant difference (p= 1.0) at 100 – 149, (p= 1.0) at 150 – 199 and (p= 0.9) at >250. There is significant difference between LDL values by direct and FW method (p=0.0490). LDL by Direct method is lower due to non interference of cholesterol and triglyceride, and LDL by FW is higher due to interference by cholesterol and triglyceride.

Conclusion: The study has concluded that LDL-Cholesterol by Direct method is reliable than Friedewald equation.