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Estimation And Association Of Apolipoprotein B, Apolipoprotein A-I And Non-Hdl Cholesterol With Coronary Artery Disease

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Background and Aim: Over the past few decades, Total cholesterol, LDL-C and HDL-C has been known to be a major risk factor for CAD. Few studies discussed the involvement of other lipoproteins as well with atherosclerosis. Literature review showed the incidence of CAD despite optimal LDL-C and were traditional lipid profile fails to predict CAD risk, Apo lipoprotein-B(Apo-B) and apolioprotien-A1(Apo-A1) levels are helpful in predicting risk of CAD, our study aimed to estimate and association of serum levels of Apo lipoprotein-B, apolioprotien-A1 and non-HDL-C in patients with CAD confirmed by coronary angiography.

Method: A descriptive cross-sectional study included where 79 non-diabetic patients having suspected CAD of statin therapy and admitted for coronary angiography for suspected CAD were included. Their fasting levels of lipid profile, Apo-B and A1 were determined and patients were divided into CAD and Non-CAD group. The CAD group was further divided into single (SVD), double (DVD) and triple vessel disease (TVD) based on severity.

Result: out of 79, 25 patients belonged to the Non-CAD and 54 to the CAD group of which 24 had SVD, 10 DVD and 20 TVD. Mean age was $52.\pm12.9$ years and 34 were smokers and 28 were hypertensive. Analysis of VLDL-C, Triglycerides, Apo-B, Apo-B/Apo-A1 and Apo-A1 showed statistically significant (p-values <0.05) correlation with CAD and its severity. ROC-curve analysis for CAD showed a significant Area under curve(AUC) of which Apo B/Apo-A1 had a high sensitivity and Positive Predictive Value of 88.89% and 92.3%, respectively at a cut-off value of >0.63.

Conclusion: VLDL-C, Triglycerides, Apo-B, Apo-B/Apo-A1 and Apo-A1 were statistically significantly associated with CAD and disease severity. Apo-B/ Apo-A1 ratio had the best predictive power for determining CAD and its severity.

Biography

Bhimjibhai hem jivani is a highly skilled and experienced General physician. With over 6 years of experience. Bhimjibhai hem jivani is known for his exceptional medical expertise and compassionate patient care. He has dedicated his career to diagnosing and treating a wide range of medical conditions while providing personalized healthcare services to his patients.

Bhimjibhai hem jivani is known for his compassionate and personalized approach to patient care. He takes the time to listen to his patients' concerns and works closely with them to develop a treatment plan that meets their individual needs.