

51st CARDIOCON 2022: ABSTRACT**CORRELATION OF SEVERITY OF CORONARY ARTERY DISEASE WITH LIPOPROTEIN A LEVEL IN YOUNG ADULTS**

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Objectives: To address the association between Lipoprotein (a) and coronary artery disease risk in young patients & to evaluate whether high levels of lipoprotein (a) is a predictor of risk and is related to the severity of coronary artery disease.

Methodology: This retrospective study was carried out at Cardiology Deptt of Hayatabad Medical Complex Peshawar between June and December 2021. Total 160 patients referred to the cardiac catheterization lab of either gender, aged 20-45 years who underwent coronary angiography for various clinical indications were enrolled in the study. Lipoprotein (a) level, lipid profile, fasting blood glucose, anthropometric and clinical parameters of the patients were analyzed.

Results: Statistically significant differences were observed in the mean of serum lipoprotein (a) concentrations between group “A” (58.6 ± 3.20 mg/ dl) and group “B” (19.6 ± 0.10 mg/ dl) P value <0.001 . Mean HDL was 32.6 ± 0.30 in group “A” and in group B it was 40.4 ± 0.39 (p value >0.005), total cholesterol was 199 ± 2.00 in group “A” & 152 ± 1.80 in group “B” (p value <0.005), triglycerides (TGL) in group “A” (182.76 ± 43.86 mg/dl) & in group “B” (124.14 ± 44.01 mg/dl) P value <0.001 , LDL in group “A” was (130 ± 4.28 & in group “B” (84.4 ± 3.00) p value <0.001 , VLDL between group “A” (36.03 ± 9.19 mg/dl) and group B (24.68 ± 8.89 mg/dl) P value >0.003 . However total Cholesterol / HDL was significantly lower in group “B” 3.5 as compared to group “A” 5.8 P value <0.002 .

Conclusion: Irrespective of other traditional risk factors, increase in Lipoprotein (a) is an independent risk factor for coronary artery disease in young adults with positive family history. Thus elevated levels of Lipoprotein (a) may serve as an important criterion to identify the individuals who need to undergo lipoprotein (a) lowering treatment, thereby preventing them from myocardial infarction.

Keywords: CAD: Coronary Artery Disease, HDL High-Density Lipoprotein, Lipoprotein

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