Assessment of Triglyceride to High-density Lipoprotein Ratio as an Indicator of Coronary Artery Disease

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Abstract

Introduction:
Increased ratio of Triglyceride (TG)/ High-density Lipoprotein (HDL) has been known as an accompanying finding in conditions like obesity and metabolic syndrome. Therefore, the aim of this study was to assess the utility of TG/HDL ratio as a diagnostic tool for the assessment of coronary artery disease (CAD).

Methods: This study was conducted at a semi-private hospital Karachi; patients above 15 years of age and undergone angiography or PCI were included. Patients with Congenital Heart Disease and familial hyperlipidmeia were excluded. TG/HDL ratio was obtained for all patients, severity of the disease was classified as normal, mild to moderate, moderate to severe, and very severe based on coronary angiography. Analysis of variance was applied to assess significant differences in mean TG/HDL ratio among severity of disease. P-value<0.05 was considered significant.

Results: A total of 2,212 CAD patients were reviewed out of which 1613 (72.9%) were male and 599 (27.1%) were female. Average age of the patients was 55.12 years (±SD=9.93). Of these 2212 patients, 533 (24.1%) had very severe disease, 1213 (54.8%) had moderate to severe disease, 258 (11.7%) had mild to moderate disease, and 208 (9.4%) were normal. A Significant and an increasing trend was observed in TG/HDL ratio with the severity of disease (p=0.0001) Statistically significant difference was observed in the TG/HDL ratio of patients with mild to moderate, moderate to severe and very severe disease from normal patients. However, no statistically significant difference was seen in the TG/HDL ratio between the patients with moderate to severe and very severe disease.

Conclusion: A positive relationship between Triglyceride to HDL Ratio and severity of coronary artery disease was observed. Therefore, TG/HDL ratio can be used as an indicator of severity of coronary artery disease in addition to other parameters of lipid profile.

Biography:

Dr. Naveed has completed his MBBS at the age of 25 years from Liaquat University of Medical Health Sciences,Jamshoro Hyderabad, Pakistan and post graduate studies from National Institute of Cardiovascular Diseases Karachi. He is the Clinical Fellow of Adult Cardiology. He is also certified BLS and ACLS Instructor from AHA in College of Physicians and Surgeons in Pakistan.

Speaker Publications:

1." Credit Availability in Agriculture and Date Palm Production in Pakistan"; International Journal of Disaster Recovery and Business Continuity/ (2020)/ Vol. 11 No. 01.

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