Conclusions: NAFLD is associated with changes in biochemical parameters in cases of NAFLD. Its early detection will help in modifying the disease course, delaying complications and will also play a major role in preventive cardiology.

Keywords: Nonalcoholic fatty liver disease (NAFLD), Lipid profile, Liver function test (LFT), Biomarker

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Waist Circumference, Not Body Mass Index, Is Associated with Increased Gamma-glutamyltranspeptidase in Type 2 Diabetes Mellitus

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Aims: Serum gamma-glutamyltranspeptidase (GGT), a marker of liver injury, alcohol consumption, and oxidative stress, has been shown to be associated with obesity and diabetes mellitus. Obese individuals with higher GGT are associated with complications in type 2 diabetic patients. There is evidence that waist circumference (WC) measured obesity more accurately than body mass index (BMI). In the present study, we aimed to evaluate association of GGT with WC and BMI in diabetic subjects.

Methods: The study subjects were 105 type 2 diabetic patients (39 men and 66 women), who attended outpatient department of Nepal Medical College Teaching Hospital, Kathmandu, Nepal. The patients with the history of alcohol intake and liver disease were excluded from the study. Anthropometric measurement was taken and venous blood was collected for biochemical analysis. Statistical analysis was done using SPSS 16.0. The p-values less than 0.05 were considered as significant.

Results: The serum GGT levels were positively correlated with blood sugar levels in diabetic subjects. Similarly, GGT levels were positively associated with WC (r=0.269, p<0.05) in women diabetic patients. However, no such correlation was observed in men diabetic subjects (r=0.14). Also, there was no correlation between serum GGT levels and BMI (r=0.03), suggesting that regional fat distribution in type 2 diabetes is associated with the increased levels of serum GGT.

Conclusions: In conclusion, WC, not the BMI, is correlated with serum GGT levels in women with type 2 diabetes. Hence, it is important to evaluate central obesity and GGT in patients with diabetes mellitus.

Keywords: Gamma-glutamyltranspeptidase, Waist circumference, Body mass index, Diabetes mellitus

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Association of Serum Aminotransferases with High Density Lipoprotein Cholesterol (HDL-C) in Diabetic Patients

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Aims: Alanine aminotransferase (ALT) and aspartate aminotransferase (AST) are commonly used markers of liver disorders. Non-alcoholic fatty liver disease (NAFLD) is associated with lipid abnormalities and type 2 Diabetes. Previous studies have suggested elevation in levels of ALT and AST which may serve as markers for NAFLD. However, correlation of liver enzymes and lipid profile has not been well established. Hence, current study was performed to observe the association between aminotransferases and HDL-C in type-2 diabetic patients.

Methods: The study was carried out in Department of Pathology, Nepal Medical College and Teaching Hospital, Kathmandu, Nepal. A total of 103 type 2 diabetic patients, 41 males (mean age: 55.9±13.4) and 62 females (mean age: 49.9±10.6) were included in this study. Patient’s anthropometric measurements were performed before collecting the fasting blood for aminotransferases and lipid profile analysis. The results were shown as mean ± SD. P-values less than 0.05 were considered as statistically significant.

Results: In the present study, serum ALT and AST levels were correlated with fasting HDL (r= -0.419, P < 0.05 and r= -0.354, P < 0.05 respectively) in women with type 2 diabetes. However, there was no such correlation among these parameters in men diabetic patients. Furthermore, there was no correlation between aminotransferase and fasting TC, TG and LDL levels.

Conclusions: This finding suggests the correlation between aminotransferase and HDL-C in diabetic patients. Hence, measurement of aminotransferase and lipid profile has clinical significance in diabetic patients.

Keywords: Diabetes mellitus, Transaminases, Non-alcoholic fatty liver disease, High-density lipoprotein cholesterol

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Association of Consumption Level of Simple Sugar and Aspartate and Alanine Aminotransferase: A Cross Sectional Observational Study

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Aims: Simple sugar is spotlighted as an important causative factor of diabetes, hypertension, and other metabolic disease. But the rela-