ELEVATED ALKALINE PHOSPHATESE LEVELS ARE ASSOCIATED WITH METABOLIC SYNDROME
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Introduction: Elevated liver enzyme activity was associated with metabolic syndrome (MetS) and only gamma-glutamyl transferase (GGT) and alanine aminotransferase (ALT) seem to be associated with an increase of the coronary stenosis in the studied population with MetS. And also, higher levels of serum alkaline phosphatase (ALP) is a predictor of mortality independent of the baseline prevalence of MetS. The aim of the study was to evaluate the relationship between liver enzymes such as aspartate aminotransferase (AST), ALT, GGT and ALP and MetS. Subjects and Method: The study population included 100 patients with MetS and 30 patients without MetS as control. Demographic and biochemical data were recorded, Insulin resistance (IR) was estimated using the homeostasis model assessment (HOMA). Results: Of 100 patients with MetS, 15 (15%) had a history of cardiovascular disease, 49 (49%) had dyslipidemia, 40 (40%) had hypertension and 15 (15%) had type 2 diabetes mellitus. Mean levels of AST, ALT, ALP and GGT were found to be 26.5±10.0 U/l, 35.2±4.4 U/l, 116.8±33.1 U/l and 31.9±6.0 U/l, respectively, in patients with MetS. Mean levels of ALP in patients were higher that of patients without MetS (p= 0.01). Mean levels of HMA-IR in patients with Mets were higher than that of control (p=0.01). Conclusion: Increased alkaline phosphatase levels are associated with metabolic syndrome. And also, alkaline phosphatase levels are positively correlated with HOMA-IR levels in patients with metabolic syndrome.