

Background: Non alcoholic fatty liver (NAFLD) and diabetes mellitus (DM) are common metabolic disorders with rising prevalence rates worldwide.

Aim of the study: To determine the relationship between DM and the non alcoholic fatty liver disease and hepatic fibrosis. Also to detected the associated risk factor significant hepatic fibrosis and NAFLD in DM.

Methods: this was case control study conducted on 76 diabetic patients and 80 non diabetic participants who were subjected to an interview questionnaire, Clinical examination, investigations (CBC, liver function tests, FBG, creatinine, urea, HBA_{1C} and lipid panel) and transient elastography (TE).

Results: comparing the diabetic group to the non diabetic one, the prevalence of NAFLD (cut off ≥ 222 dB/m) and significant fibrosis (cut off ≥ 7 kPa) were **92.1%** and **29%** vs **72.5%** and **5%** respectively. Among the diabetic group, only female, smoking, increased BMI, insulin treatment, decreased red blood cell count and increased total proteins level were associated significantly with NAFLD. While significant fibrosis was associated significantly with social class, increased hemoglobin level and decreased platelet count.

Conclusion: there is strong association between DM and NAFLD. As DM enhances NAFLD progression.

Key words: NAFLD, DM, significant fibrosis and TE.