ABSTRACT

BACKGROUND:

INTRODUCTION:

Non alcoholic fatty liver disease (NAFLD) is increasingly being recognised as a major cause of liver related morbidity and mortality. Because of its potential to progress to cirrhosis and liver failure.

Patients with type 2 diabetes mellitus (DM) have an increased risk of developing the spectrum of NAFLD manifestations ranging from simple steatosis, non alcoholic steatohepatitis, hepatic fibrosis/cirrhosis to liver failure. Furthermore DM with NAFLD have three times high mortality compared to non-diabetic NAFLD.

NAFLD fibrosis score is non invasive predictive score for hepatic fibrosis which includes six parameters and categorised into three groups based on the scores < -1.455 = F0 – F2, -1.455 – 0.675 = Intermediate, > 0.675 = F3-F4 . The high risk patients are subjected to fibroscan and stage of fibrosis is confirmed.

AIMS & OBJECTIVES:

1. To categorize the diabetic patients into four groups- obese, non obese, ultrasonographic presence and absence of hepatic steatosis.

2. To analyse the risk of hepatic fibrosis in these patients using NAFLD FIBROSIS SCORE.

3. To correlate the stage of fibrosis by FIBRO scan in group of patients with high NAFLD SCORE.
MATERIALS AND METHODS:

The study was carried out in Govt. Stanley Medical college Hospital, Chennai. This is a facility based observational study involved patients who attended medicine and diabetology outpatient department and as well as inpatients.

The relevant data collected are: Age, Sex, Duration of diabetes, BMI, Aspartate aminotransferase level, Alanine amino transferase level. Platelet count, Serum Albumin level.

RESULTS:

The study population included 40 males and 60 females. Study population categorised to obese and non obese group. 57% of population were in obese group and 43% in non obese group. 59.6% of patients had ultrasonographic evidence of hepatic steatosis in obese group and 40.4% had no ultrasonographic evidence of hepatic steatosis in obese group.

6.9% of patients only had ultrasonographic evidence of hepatic steatosis in non obese group and 93% had no evidence of hepatic steatosis in non obese group. The non alcoholic fatty liver disease fibrosis score was calculated in all patients of study population and 35% of patients had high risk score in obese group compared to only 0.2% in non obese group. 36% of patients had intermediate risk in obese group compared to 13.9% in non obese group. 28% had low risk in obese group compared to 83.7% in non obese group. When the patients of high risk NAFLD score of both groups including 20 patients from obese group and 1 patient from non obese group were subjected to fibro scan, the correlation between fibro scan and NAFLD score.
CONCLUSION:

Patients with diabetes mellitus and obesity were found to had increased incidence of fatty liver in ultrasonography and high risk NAFLD score and those patients with high risk score had increased hepatic fibrosis in fibro scan.