APRI, FIB 4 and AST/ALT ratio correlation with Fibro scan in predicting severe or not severe fibrosis

Bhargav V Y, Thamarai Selvan S, Jayanthi Venkataraman
Department of Hepatology, Sri Ramachandra Medical College

BACKGROUND AND AIM
Metabolic associated fatty liver disease (MAFLD) leading to steatohepatitis, fibrosis and cirrhosis of the liver is the global burden currently that is rapidly increasing in incidence. Hence early diagnostic and screening tools which are non-invasive are required to identify the disease. Aim is to identify a non-invasive score among Fibrosis -4 (FIB 4), AST platelet ratio index (APRI) and AST/ALT ratio, that can correlate with fibro scan in predicting liver fibrosis accurately in MAFLD patients.

RESULTS
The results of 302 patients were analysed among which 186(61.8%) were males, 24.9% had Diabetes Mellitus, 18.9% had Hypertension, 18.6% had Dyslipidaemia. Fibrosis severity in the study showed 127(42.2%) had severe (F3, F4) and 174(57.8%) had non severe fibrosis (F0, F1, F2). Mean Body Mass Index (BMI) in severe fibrosis patients was 28.9kg/sq. m. Among the scores, FIB 4 and APRI were predictive of severe fibrosis which was statistically significant (0.005 & 0.009). FIB 4 showed a specificity of 93.7%, positive predictive value (PPV) of 74.4%, and APRI showed a specificity of 89.1%, PPV of 65.5%.

METHODS
A Cross sectional study was conducted on patients diagnosed with fatty liver (Grade I, II, III) based on USG abdomen. Study period was from September 2020 to March 2021. These patients underwent Fibro scan and fibrosis scores were measured in Kpa (kilo pascals) were categorised into not severe fibrosis (F0, F1, F2) and severe fibrosis (F3, F4). FIB 4, APRI and AST/ALT ratio were measured based on the patient’s lab data. Previously known or underlying liver disease, significant alcohol consumption patients were excluded from the study. The results of above scores were compared with fibro scan results in predicting severe/not severe fibrosis.

REFERENCES