

The routine clinical use of FIB-4 in lipid clinics

Ruvini NK Ranasinghe¹, Amy Jennings¹, Tina Mazaheri¹, Wiaam Al Hassani¹, Nandini Rao¹,
Georgios K Dimitriadis², Royce P Vincent¹

¹Department of Clinical Biochemistry, ²Department of Endocrinology,
King's College Hospital NHS Foundation Trust, London

Introduction

- Non-alcoholic fatty liver disease (NAFLD) includes a spectrum; simple steatosis to non-alcoholic steatohepatitis (NASH), advanced fibrosis and rarely, progression to cirrhosis.
- Liver biopsy, to confirm NAFLD, is costly, invasive and associated with complications.
- Non-invasive biomarkers, such as Fibrosis-4 Index (FIB-4) are helpful to screen those at higher risk.
- As NAFLD is the hepatic manifestation of metabolic syndrome, we assessed the clinical utility of routine FIB-4 in patients presenting to lipid clinic.

Methods

- This retrospective assessment included patients with aspartate aminotransferase (AST), alanine aminotransferase (ALT) and platelet (PLT) results to calculate FIB-4.
- Those with history of NASH or excess ethanol intake were excluded.
- FIB-4 >1.45 indicates, moderate and >3.25, significant fibrosis.

Results

- 51 patients (25M) were included aged 49 (39 - 62) [median (IQR)] years.
- ALT was 25 (18-44) IU/L, AST 23 (20 - 29) IU/L, GGT 28 (16 - 49) IU/L and PLT 264 (214 - 306) x10⁹/L.
- BMI 27 (23 - 30) kg/m². (Figure 1).
- FIB-4 was 1.00 (0.69 - 1.22). (Figure 2).
- Six (12%) had FIB-4 >1.45.
- 15 patients (30%) had pre- and type 2 diabetes.
- There was no difference in FIB-4 between the genders and BMI groups.

Conclusion

- In our cohort, FIB-4 identified 12% who would benefit from further assessment for NAFLD.
- Larger studies are needed to establish the clinical utility of routine FIB-4 screening in lipid clinics.

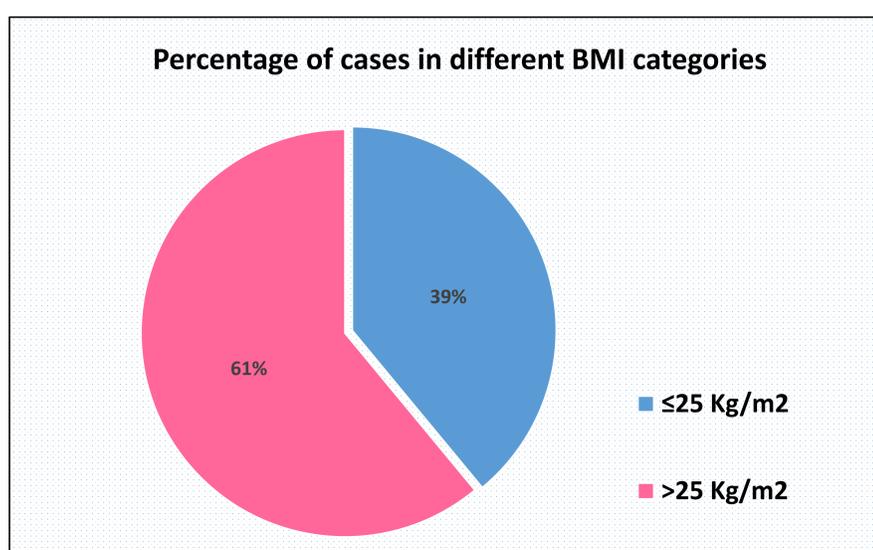


Fig 1. Percentages of patients in each BMI Category

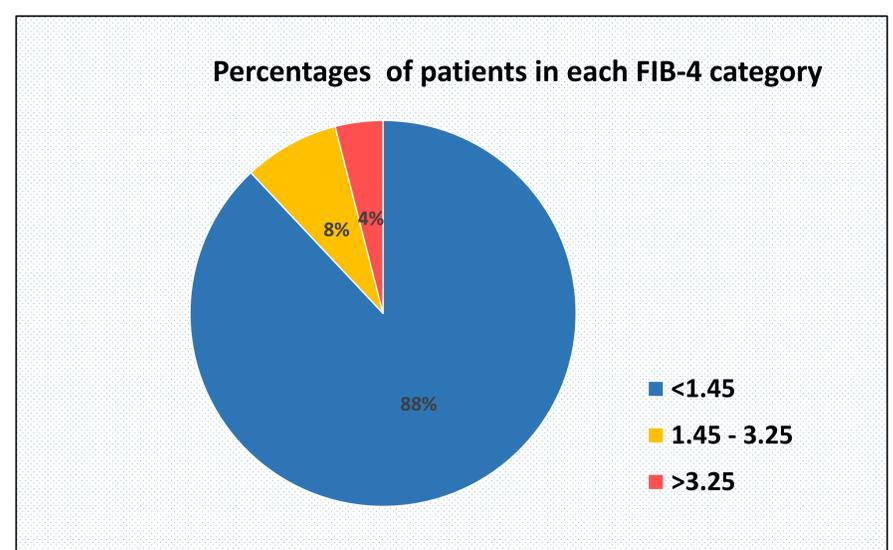


Fig 2. Percentages of patients in each FIB-4 Category