primary studies - published, non RCT

Non-invasive evaluation of steatosis and fibrosis in the liver in adults patients living with cystic fibrosis.

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Study design (if review, criteria of inclusion for studies)

Cross-sectional study

Participants

101 adult patients with cystic fibrosis seen in a multidisciplinary unit.

Interventions

Magnetic resonance-proton density fat fraction (MR-PDFF), magnetic resonance elastography (MRE), The secondary objective was to determine the diagnostic yield of widely available non-invasive liver markers for steatosis and fibrosis, and vibration controlled transitional elastography (VCTE) releasing Control Attenuation Parameter (CAP) (dB/m) and stiffness (kPa), with the aim of proposing a diagnostic algorithm.

Outcome measures

The study encompassed a clinical evaluation, morpho-functional assessment, VCTE, non-invasive liver markers and MR-PDFF and MRE. Diagnostic accuracy was assessed using ROC curves and 2 × 2 tables.

Main results

MR-PDFF detected hepatic steatosis in 18 of 101 (17.8 %) patients, while MRE detected significant liver fibrosis in 15 of 101 (14.9 %). The VCTE cut-off with the best diagnostic yield, determined by the Youden index, was 222 dB/m for the presence of steatosis (AUC 0.864 (95 % CI 0.768-0.961; p

Authors' conclusions

The prevalence of hepatic steatosis and liver fibrosis was 17.8 % and 14.9 %, respectively. VCTE alone or in combination with FLI for steatosis or HFS for fibrosis demonstrated high diagnostic accuracy. This approach effectively allows for the exclusion of steatosis and fibrosis, thereby reducing the need for MR-PDFF and MRE studies.

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See also

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Keywords

Adult; Gastrointestinal Diseases; Liver Diseases; non pharmacological intervention - diagn; elastography; diagnostic procedures;