Performance of transient elastography (TE) and factors associated with discordance in non-alcoholic fatty liver disease.

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Abstract

OBJECTIVE:

To determine the accuracy of transient elastography (TE) and factors associated with discordance between TE and liver histology in patients with non-alcoholic fatty liver disease (NAFLD).

METHODS:

The accuracy of TE was assessed and compared with the aspartate aminotransferase-to-platelet ratio index (APRI) in patients with histologically proven NAFLD. Factors associated with discordance between liver histology and TE were analyzed.

RESULTS:

Altogether 131 patients with a mean age of 49.9 years, including 69 men and 62 women, with NAFLD underwent liver stiffness measurement (LSM) by TE. Among all patients, 120 (91.6%) had a successful LSM with an interquartile to median ratio of 0.15. The accuracy of TE in detecting ≥F3 and F4 fibrosis, assessed by the area under the receiver operating characteristic curve, were 0.77 and 0.95, respectively. The sensitivity and specificity of the optimal LSM cut-off values for detecting ≥F3 fibrosis (sensitivity 70.4% and specificity 66.6%) and F4 (sensitivity 87.5% and specificity 89.3%) were modest, but better than those of APRI. Discordance between TE and histology for fibrosis grading was observed in 22.5% of patients, but it could not be explained by body mass index, alanine aminotransferase level, the length of the biopsied specimens or the grade of steatosis.

CONCLUSION:

TE plays an important role in the detection of advanced fibrosis and cirrhosis in patients with NAFLD and its accuracy does not appear to be influenced by components of the disease.

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