

DIAGNOSTIC PERFORMANCE OF SHEAR WAVE MEASUREMENT (SWM) AND ATTENUATION (ATT) MEASUREMENT TO ASSESS LIVER DAMAGE IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

Ivica Grgurevic

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Poster

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Shear Wave Measurement by Fujifilm showed good performance for detecting advanced liver fibrosis in type 2 diabetes patients, while Attenuation Measurement performed poorly for steatosis detection when compared to transient elastography.

KEY POINTS

- In 147 type 2 diabetes patients, Shear Wave Measurement correlated well with transient elastography liver stiffness (Pearson $R=0.68$) and achieved AUROC 0.905 for advanced fibrosis detection at cut-off 8.3 kPa with 76.5% sensitivity and 93.8% specificity.
- Attenuation Measurement showed poor correlation with controlled attenuation parameter (Pearson $R=0.31$) and suboptimal diagnostic performance for liver steatosis with AUROC 0.673 at cut-off 0.66 dB/cm/MHz (56.5% sensitivity, 75.3% specificity).
- Shear Wave Measurement consistently produced lower liver stiffness values than transient elastography (mean difference -0.7 kPa), with optimized cut-offs of 10.1 kPa for ruling-in (97% specificity) and 6.2 kPa for ruling-out (94.1% sensitivity) advanced fibrosis.
- The authors conclude that Attenuation Measurement requires further investigation using more reliable reference methods such as liver biopsy or magnetic resonance imaging.
- This study is relevant for clinicians evaluating non-invasive liver assessment technologies in patients with type 2 diabetes and suspected non-alcoholic fatty liver disease.

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