



## Independent validation of the Enhanced Liver Fibrosis (ELF) score in the ANRS HC EP 23 Fibrostar cohort of patients with chronic hepatitis C

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**BACKGROUND:** The Enhanced Liver Fibrosis (ELF) score combining serum hyaluronan, N-terminal peptide of type III procollagen and tissue inhibitor of metalloproteinase-1, was reported as relevant in predicting liver fibrosis in chronic liver disease and proposed as an alternative to liver biopsy.

**METHODS:** We evaluated the ELF score in a cohort of chronic hepatitis C (CHC) patients included in a multicenter prospective study (ANRS HC EP 23 Fibrostar) using commercial reagents, different from those developed by the manufacturer of the Siemens ELF™ test.

**RESULTS:** In 512 CHC, the ELF score, using ROC curves, showed good predictive performances for severe fibrosis [AUROC=0.82; 95% confidence interval (CI) 0.78-0.86] and for cirrhosis (AUROC=0.85; 95% CI 0.81-0.90), but slightly lower for significant fibrosis (AUROC=0.78; 95% CI 0.74-0.82). The Obuchowski measure (0.81) showed that the ELF score globally performed as a marker of liver fibrosis. The ELF score predicted significant fibrosis (cut-off=9.0) with a sensitivity of 0.86, a specificity of 0.62, a positive predictive value (PPV) of 0.80 and a negative predictive value (NPV) of 0.70. For extensive fibrosis (cut-off=9.33), sensitivity was 0.90, specificity was 0.63, PPV was 0.73 and NPV was 0.85. For cirrhosis (cut-off=9.35), sensitivity was 0.83, specificity was 0.75, PPV was 0.44 and NPV was 0.95.

**CONCLUSIONS:** This study confirms the ELF score performance as an index to predict liver fibrosis or cirrhosis in CHC. The ELF test, using validated reagents, could be added to the health authorities approved non-invasive tests in assessing fibrosis as surrogate to liver biopsy.

Résumé en  
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