Liver fibrosis diagnosis by blood test and elastography in chronic hepatitis C: agreement or combination?

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Résumé en anglais	BACKGROUND: In chronic hepatitis C, the European Association for the Study of the Liver and the Asociacion Latinoamericana para el Estudio del Higado recommend performing transient elastography plus a blood test to diagnose significant fibrosis; test concordance confirms the diagnosis.
	AIM: To validate this rule and improve it by combining a blood test, FibroMeter (virus second generation, Echosens, Paris, France) and transient elastography (constitutive tests) into a single combined test, as suggested by the American Association for the Study of Liver Diseases and the Infectious Diseases Society of America.
	METHODS: A total of 1199 patients were included in an exploratory set (HCV, n = 679) or in two validation sets (HCV ± HIV, HBV, n = 520). Accuracy was mainly evaluated by correct diagnosis rate for severe fibrosis (pathological Metavir F ≥ 3, primary outcome) by classical test scores or a fibrosis classification, reflecting Metavir staging, as a function of test concordance.
	RESULTS: Score accuracy: there were no significant differences between the blood test (75.7%), elastography (79.1%) and the combined test (79.4%) (P = 0.066); the score accuracy of each test was significantly (P < 0.001) decreased in discordant vs. concordant tests. Classification accuracy: combined test accuracy (91.7%) was significantly (P < 0.001) increased vs. the blood test (84.1%) and elastography (88.2%); accuracy of each constitutive test was significantly (P < 0.001) decreased in discordant vs. concordant tests but not with combined test: 89.0 vs. 92.7% (P = 0.118). Multivariate analysis for accuracy showed an interaction between concordance and fibrosis level: in the 1% of patients with full classification discordance and severe fibrosis, non-invasive tests were unreliable. The advantage of combined test classification was confirmed in the validation sets.
	CONCLUSIONS: The concordance recommendation is validated. A combined test, expressed in classification instead of score, improves this rule and validates the recommendation of a combined test, avoiding 99% of biopsies, and offering precise staging.

Liens

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