



AST/ALT ratio is not an index of liver fibrosis in chronic hepatitis C when aminotransferase activities are determinate according to the international recommendations.

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OBJECTIVE: The aspartate aminotransferase activity (AST)/alanine aminotransferase activity (ALT) ratio is used as liver fibrosis index whereas the reported data are conflicting. In chronic hepatitis C (CHC), reported diagnostic accuracies range from none to good for significant fibrosis and to excellent for cirrhosis. Assuming that AST/ALT increases are mainly due to vitamin B6 defects since pyridoxal phosphate (PLP), active form of B6, acts as coenzyme in transamination reactions, we evaluated the diagnostic accuracy of the AST/ALT ratio using standardized methods for AST and ALT activities, with PLP addition as recommended, in a prospective multicenter cohort of CHC patients.

Résumé en
anglais

METHODS: ALT and AST activities were measured using the recommended IFCC methods with addition of pyridoxal 5'-phosphate. We evaluated the AST/ALT ratio for the diagnosis of liver fibrosis or cirrhosis in a cohort of CHC patients included in a multicenter prospective study. A liver biopsy was performed in each patient and reviewed by two independent pathologists in order to determine the fibrosis stage according to Metavir classification which was the reference standard.

RESULTS: AST/ALT ratio significantly increased with histological stage of liver fibrosis and there was a significant correlation between Metavir fibrosis stage and AST/ALT ratio ($r=0.129$, $P<0.0035$). The ROC curve analyses showed that the AST/ALT ratio does not discriminate significant fibrosis ($F\geq 2$) (AUROC=0.531) and had only very poor diagnostic accuracies for severe fibrosis ($F\geq 3$) (AUROC=0.584) or cirrhosis (F4) (AUROC=0.626).

CONCLUSION: AST/ALT ratio is not a good and discriminative index of liver fibrosis in CHC when aminotransferase activities are determinate according to the international recommendations.

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