

ORIGINAL ARTICLE

Prognostic Value of ALT, AST, and AAR in Hepatocellular Carcinoma with B-Type Hepatitis-Associated Cirrhosis after Radical Hepatectomy

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SUMMARY

Background: Alanine aminotransferase (ALT), aspartate aminotransferase (AST), and AST to ALT ratio (AAR) were shown to be associated with prognosis in some groups of hepatocellular carcinoma (HCC). However, their clinicopathologic and prognostic roles in HCC patients with B-type hepatitis-associated cirrhosis (HBAC) have not been comprehensively investigated. The present study aimed to address the issues.

Methods: A total of 125 patients with HCC and HBAC after radical hepatectomy were included. The correlations of ALT, AST, and AAR with clinicopathologic parameters, overall/recurrence-free survival, overall/early recurrence, and post-recurrence survival were evaluated using univariate and multivariate analyses.

Results: ALT and AST, which positively correlated with each other, had significant relationships with tumor-node-metastasis (TNM) stage and Edmondson-Steiner grade. In univariate analyses, ALT and AST were predictive for early recurrence, overall and recurrence-free survival, while ALT and AST was associated with overall recurrence and post-recurrence survival, respectively. However, only AST was marginally significant in multivariate tests for early recurrence and post-recurrence survival. As for AAR, no significant prognostic relevance was found.

Conclusions: Our data suggest that ALT and AST, but not AAR, might be potential predictors of post-resectional outcome in HCC with HBAC. These effects might depend on their associations with crucial clinicopathologic variables.

(Clin. Lab. 2018;64:xx-xx. DOI: 10.7754/Clin.Lab.2018.180532)

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Supplementary Figure.

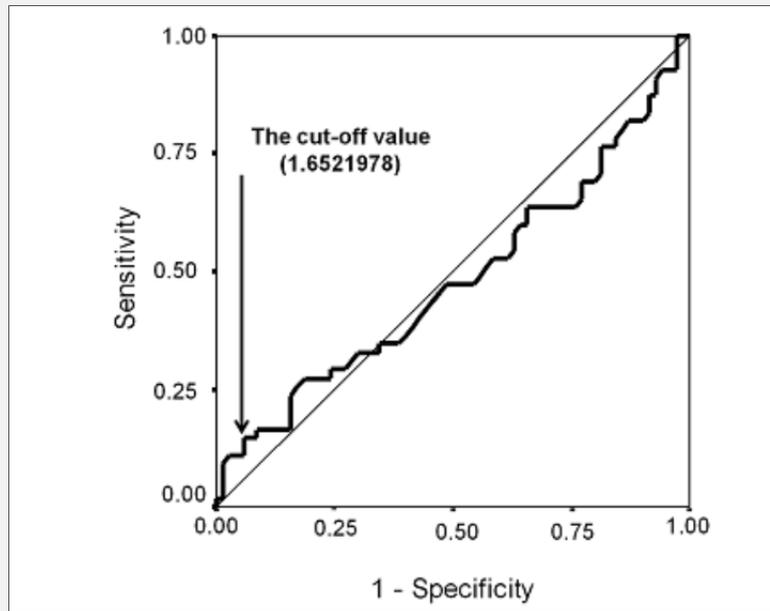


Figure S1. Determination of the cutoff value of AAR for overall survival based on the ROC curve.

AAR - aspartate aminotransferase to alanine aminotransferase ratio, ROC - receiver operating characteristic.