

EV0055

ePoster Viewing

Viral hepatitis (incl antiviral drugs, treatment & susceptibility/resistance, diagnostics & epidemiology)

Diagnostic accuracy of the aspartate aminotransferase-to-platelet ratio index for the prediction of hepatitis B-related fibrosis

Houda Ben Ayed¹, Makram Koubaa¹, Marwa Gargouri¹, Tarak Ben Jemaa¹, Abdelkarim Bahloul¹, Tahia Boudawara², Chakib Marrakchi¹, Mounir Ben Jemaa^{*1}

¹*Department Of Infectious Diseases, Hedi Chaker University Hospital, Sfax, Tunisia*

²*Laboratory of Histopathology, Habib Bourguiba University Hospital, Sfax, Tunisia*

Background : Chronic hepatitis B viral (CHB) infection remains frequent in developing countries. It may lead to cirrhosis and/or hepatocellular carcinoma. Liver biopsy is expensive and risky which often requires hospitalization. We aim to evaluate the usefulness of the aspartate aminotransferase-to-platelet ratio index (APRI) in predicting liver fibrosis in CHB.

Materials/methods : A retrospective study included all patients with CHB followed in a department of Infectious Diseases from 2005 to 2015. They underwent biological analysis and liver biopsy. A significant fibrosis was defined when Metavir-Score was \geq F2.

Results : One hundred and twenty six patients were enrolled. They were predominantly men (70%). Mean age was 38 ± 10 years. Family history of hepatitis B was found in 26 patients (20.6%). Fifty three patients (42%) had no symptoms and 42 ones (33.3%) had abnormal abdominal echographic findings. Regarding the histological results, we gathered 68 patients (54%) with significant fibrosis. According to Metavir scoring system, 53 patients (42%) had F0 or F1 stage and 44 ones had F2 stage (35%). Metavir F3 stage was encountered in 20 patients (15.8%) and only 4 patients had F4 stage (3%). Both APRI was significantly greater in patients with significant liver fibrosis (1.26 ± 1.8 vs. 0.49 ± 0.27 ; $p = 0.001$). The APRI score and the fibrosis stage were significantly correlated ($p < 0.0001$). The area under receiver operating characteristic curve (AUROC) for predicting significant fibrosis was 0.74 with APRI score. An APRI threshold of 0.5 was 72% sensitive and 69% specific. The positive predictive value was 0.67 and the negative predictive value was 0.58.

Conclusion : Our study highlighted that APRI score seem to be interesting in CHB. They had a significant correlation with histological findings. APRI score had good sensitivity and sensibility in predicting significant fibrosis. Thus we can avoid the invasive risks of liver biopsy which may give the way to the biomarkers to predict fibrosis.