A comparative study of Duplex Doppler ultrasound and blood indices as noninvasive predictors of oesophageal varices in cirrhotic patients

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Background: Endoscopic surveillance of oesophageal varices (OV) in cirrhotic patients is expensive and uncomfortable for the patients. Therefore, there is a particular need for noninvasive predictors for OV.

Objective: The aim of the present study was to evaluate the accuracy of ultrasound indices and blood indices as noninvasive OV predictors among cirrhotic patients. Patients and methods A total of 61 cirrhotic patients were enrolled in this study and were divided into two groups: 21 patients without OV and 40 patients with OV who were further subdivided into 24 patients with small OV and 16 with large oesophageal varices (LOV). P2/MS, serum fibrosis markers (APRI, FIB4, Lok score, and Forns index), abdominal ultrasonography [portal vein diameter (PVD), splenic index], platelet count/spleen diameter ratio (PC/SD), and Doppler ultrasonography [portal vein velocity, splenoportal index, hepatic and splenic impedance indices, and hepatic venous waveform (HVWF)] were assessed in all patients.

Results: P2/MS was the best predictor of OV and LOV [area under the curve (AUC) 0.88 and 0.787, respectively] followed by PC/SD (AUC 0.77 and 0.715, respectively). PVD, serum fibrosis markers, and serum albumin had the least accuracy for OV prediction. For LOV predictions, Lok score had good accuracy (AUC 0.785) followed by serum albumin, PVD, APRI, and Forns index (AUC 0.72, 0.738, 0.734, and 0.738, respectively). Monophasic HVWF showed a good positive predictive value (85%) and specificity (80.95%) for prediction of OV and good sensitivity (81.25%) and negative predictive value (81.25%) for LOV.

Conclusion: P2/MS can identify OV and LOV in cirrhosis with high accuracy followed by PC/SD. Monophasic HVWF is a good noninvasive predictor of OV and LOV in cirrhotic patients.

Biography
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