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ABOUT COVER

Editorial board member of *World Journal of Hepatology*, Dr. Fernando Oscar Bessone is Professor of Gastroenterology and Chief of the Gastroenterology and Hepatology Department at the Hospital Provincial del Centenario, University of Rosario School of Medicine (Brazil). Dr. Bessone completed postgraduate training in Clinical Hepatology, Liver Pathology (Hospital de Clinicas, San Pablo, Brazil), Pediatric Hepatology (Hospital da Criança, San Pablo, Brazil), and Liver Transplantation and Clinical Hepatology (Hospital Clinic y Provincial de Barcelona, Spain). He has served as Principal Investigator or Co-Investigator in more than 50 clinical trials, and is currently the Coordinator of the Latin American Registry of Hepatotoxicity. He authored more than 70 articles, 30 book chapters, and more than 140 papers presented at scientific meetings. In addition, he serves as an editorial board member for several international hepatology-related journals. (L-Editor: Filipodia)

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WJH mainly publishes articles reporting research results and findings obtained in the field of hepatology and covering a wide range of topics including chronic cholestatic liver diseases, cirrhosis and its complications, clinical alcoholic liver disease, drug induced liver disease autoimmune, fatty liver disease, genetic and pediatric liver diseases, hepatocellular carcinoma, hepatic stellate cells and fibrosis, liver immunology, liver regeneration, hepatic surgery, liver transplantation, biliary tract pathophysiology, non-invasive markers of liver fibrosis, viral hepatitis.

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Role of platelet-albumin-bilirubin score in predicting re-bleeding after band ligation for acute variceal hemorrhage

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Abstract

Platelet-albumin-bilirubin (PALBI) score was proposed by Roayaie *et al* with modification of previously studied albumin-bilirubin score to include platelet as an indicator of portal hypertension in 2015. Predictive value of this score was recently tested by Elshaarawy *et al* for re-bleeding in patients presenting with acute variceal hemorrhage. We did a similar study at our center ($n = 170$) to look at incidence of re-bleeding after band ligation defined as drop in 2 units of hemoglobin and witnessed melena or hematemesis within 2 wk of the procedure. We calculated PALBI scores for all patients based on lab values prior to the procedure. Of 25.3% had re-bleeding episodes, area under receiver operating characteristic curve for PALBI as predictor of re-bleeding was 0.601 (95% confidence interval: 0.502-0.699). PALBI score showed moderate accuracy at predicting re-bleeding in our population.

Key Words: Cirrhosis; Band ligation; Portal hypertension; Ascites; Platelet-albumin-bilirubin; Model of end stage liver disease

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Core Tip: Platelet-albumin-bilirubin score showed moderate accuracy in predicting re-bleeding after band ligation in patients presenting with acute variceal hemorrhage.

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TO THE EDITOR

We read with great interest article by Elshaarawy *et al*^[1] regarding the role of platelet-albumin-bilirubin (PALBI) score in predicting re-bleeding and in-patient mortality for patients presenting with acute variceal hemorrhage^[1]. The authors found that area under receiver operating characteristic (AUROC) for PALBI with outcome of re-bleeding was 0.794. This was higher than Child-Turcot-Pugh (CTP), Model of End Stage Liver Disease and Albumin-Bilirubin (ALBI) scores, which were 0.681, 0.74 and 0.766, respectively. PALBI score was proposed by Roayaie *et al*^[2] with modification of previously proposed ALBI score to include platelet as an indicator of portal hypertension in 2015^[2]. It has been studied as a predictor of liver transplant outcomes^[3], rate of decompensation in compensated cirrhosis^[4], outcomes of locoregional treatment for liver cancer^[5] and now for re-bleeding after acute variceal hemorrhage.

We did a similar study at our center and calculated the PALBI score to validate this data. Our study comprised of 170 patients with a diagnosis of cirrhosis who presented with acute variceal hemorrhage and underwent esophageal variceal band ligation from 2017 to 2018. Of our patients, 18.8% were CTP-A, 48.2% CTP-B and 32.9% CTP-C. In comparison, Elshaarawy *et al*^[1] had 4.5% CTP-A, 29.2% CTP-B and 66.8% CTP-C patients. Our outcome of interest was re-bleeding with the definition proposed by *Baveno VI*: Drop in two units of hemoglobin along with hematemesis or melena observed clinically within 2 wk of the procedure. 25.3% had re-bleeding in our population based on this definition. 12.1%, 22.6% and 64.3% of our patients qualified for PALBI category 1 (score ≤ -2.53), 2 (score > -2.53 and ≤ -2.09) and 3 (score > -2.09) respectively.

AUROC for PALBI score in predicting re-bleeding was calculated to be 0.601 (95% confidence interval: 0.502-0.699) and the curve is shown in [Figure 1](#). This indicates moderate quality at best of the PALBI score in predicting re-bleeding after band ligation. This is lower than the reported AUROC by Elshaarawy *et al*^[1] by 24.3%. 4.5% of re-bleeders in our cohort belonged to PALBI category 1, 28.9% to PALBI category 2 and 28.7% to PALBI category 3. Rates of re-bleeding in each category are shown in [Figure 2](#).

We found PALBI score to be relatively less accurate than reported by Elshaarawy *et al*^[1] in predicting re-bleeding after band ligation. This discrepancy can be due to differences in the size and characteristics of patient population and definition of the outcome. We only included patients who underwent band ligation for acute variceal hemorrhage from esophageal varices. In contrast, only 51.7% of Elshaarawy *et al*^[1] underwent band ligation alone as treatment for variceal hemorrhage. Their outcome of interest was re-bleeding within 5 d, but we evaluated for re-bleeding within 2 wk following the procedure. Both studies were limited by retrospective design, small number of patients and data from a single institution.

In conclusion, PALBI score is a promising tool for predicting re-bleeding after initial presentation with acute variceal hemorrhage. More data is needed to validate its use in clinical settings post band ligation procedure.

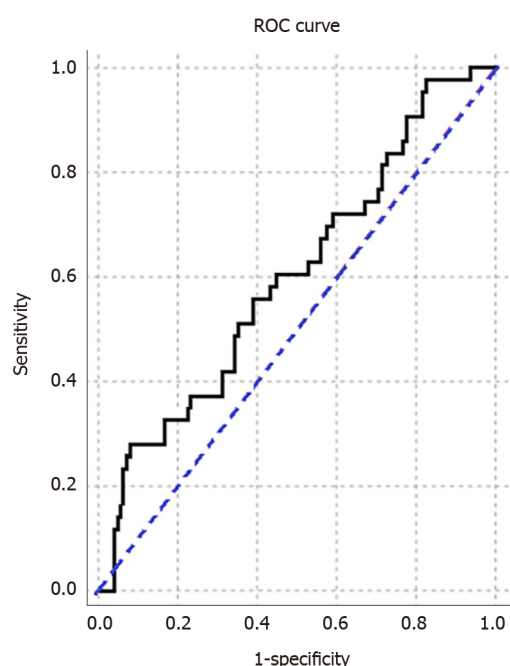


Figure 1 Receiver operating characteristic curve for platelet-albumin-bilirubin score and occurrence of re-bleeding. ROC: Receiver operating characteristic.

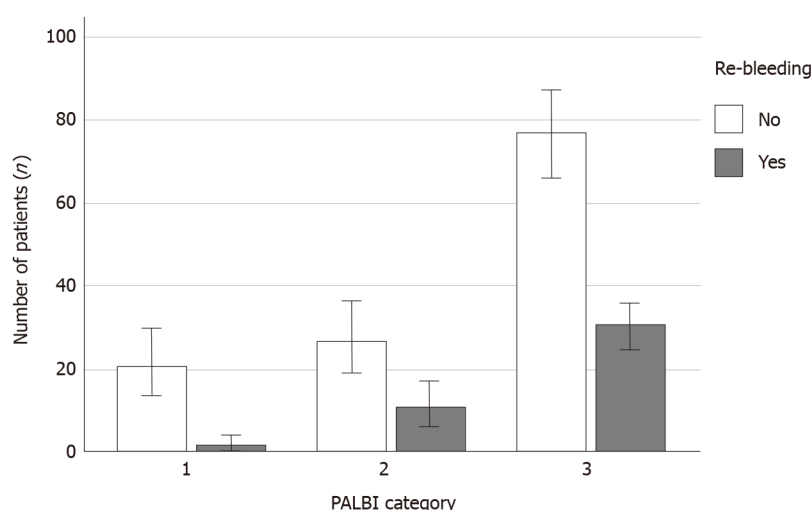


Figure 2 Comparison of different platelet-albumin-bilirubin categories with regards to number of patients who had re-bleeding. PALBI: platelet-albumin-bilirubin.

REFERENCES

- 1 **Elshaarawy O**, Allam N, Abdelsameea E, Gomaa A, Waked I. Platelet-albumin-bilirubin score - a predictor of outcome of acute variceal bleeding in patients with cirrhosis. *World J Hepatol* 2020; **12**: 99-107 [PMID: 32231763 DOI: 10.4254/wjh.v12.i3.99]
- 2 Poster Sessions. *Hepatology* 2015; **62** Suppl 1: 93A-207A [PMID: 26425959 DOI: 10.1002/hep.28162]
- 3 **Chedid MF**, Picon RV, Chedid AD. ALBI and PALBI: Novel Scores for Outcome Prediction of Cirrhotic Outpatients Awaiting Liver Transplantation. *Ann Hepatol* 2018; **17**: 906-907 [PMID: 30600306 DOI: 10.5604/01.3001.0012.7190]
- 4 **Oikonomou T**, Goulis L, Doumstis P, Tzoumari T, Akriviadis E, Cholongitas E. ALBI and PALBI Grades Are Associated with the Outcome of Patients with Stable Decompensated Cirrhosis. *Ann Hepatol* 2019; **18**: 126-136 [PMID: 31113581 DOI: 10.5604/01.3001.0012.7904]
- 5 **Ho CHM**, Chiang CL, Lee FAS, Choi HCW, Chan JCH, Yeung CSY, Huang JJ, Chan MKH, Blanck O, Wong FCS. Comparison of platelet-albumin-bilirubin (PALBI), albumin-bilirubin (ALBI), and child-pugh (CP) score for predicting of survival in advanced hcc patients receiving radiotherapy (RT). *Oncotarget* 2018; **9**: 28818-28829 [PMID: 29988960 DOI: 10.18632/oncotarget.25522]



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