

Evaluation of the MELNa AGIB Scale to Predict Mortality in Patients with Cirrhosis and Variceal Hemorrhage.

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Introduction and Objectives: Patients with decompensated cirrhosis are at risk of variceal hemorrhage, which increases the risk of mortality. Validated scales exist to assess this risk, but there is currently no scale that evaluates the risk of variceal hemorrhage and death simultaneously. The MELDNa AGIB (acute gastrointestinal bleeding) scale incorporates sodium (Na) levels, albumin levels, the corrected QT interval (QTc), and a history of hemorrhage to calculate mortality at 6 weeks. While it has been evaluated in other centers, further studies are needed to validate its utility. To evaluate the MELDNa-AGIB scale for predicting the risk of mortality in decompensated cirrhotic patients.

Materials and Patients: This was a retrospective, analytical, observational study conducted on a cohort of patients with decompensated cirrhosis and variceal hemorrhage. The MELDNaAGIB scale was calculated for each patient and compared with other scoring systems, including MELD, MELD NA, MELD LACTATE, and MELD 3.0, to assess its effectiveness. Statistical analysis involved the construction of ROC curves to determine the prognostic value of each scoring system in predicting mortality among patients with variceal bleeding. A significance level of $p < 0.05$ was considered, and sensitivity and specificity were determined based on the cutoff points obtained from the significant ROC curves.

Results: A total of 32 patients were included in the study, of whom 56.2% were male, with an average age of 57 ± 11 . The etiologies of cirrhosis included alcohol-related, metabolic-associated fatty liver disease (MAFLD), dual injury, hepatitis C virus (HCV), autoimmune hepatitis (AIH), and unidentified causes (34.37%, 31.25%, 21.87%, 6.25%, 3.12%, 3.12%, respectively). Fifty percent of the patients had a prolonged QTc interval (>456 ms) as calculated using the Fridericia formula, and 67.2% had a history of previous variceal hemorrhage. The MELDNa-AGIB scale demonstrated an area under the receiver operating characteristic (AUROC) curve of 0.849 (95% confidence interval: 0.681-0.950, $p = 0.004$), with a sensitivity of 87.5% and specificity of 83% when a cutoff point of 17 was applied for MELDNa-AGIB. The AUROC for predicting mortality was significantly lower for MELD/Lactate.

Conclusions: Although the study group was small, the MELDNa-AGIB scale showed significant performance in predicting 6-week mortality in patients who developed variceal hemorrhage.

Ethical statement

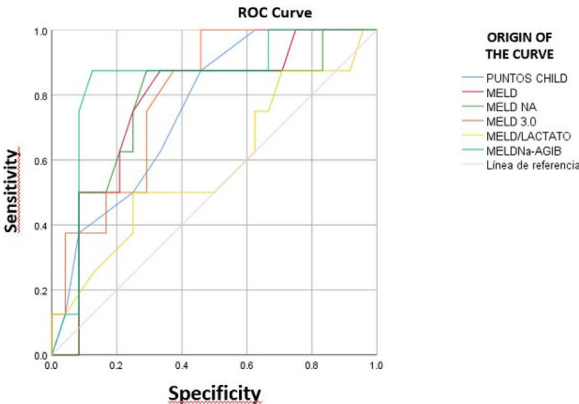
The protocol was registered and approved by the Ethics Committee. The identity of the patients is protected. Consentment was obtained.

Declaration of interests

None

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AREA UNDER THE CURVE					
TEST VARIABLES	Area	Desv. Error ^a	Asymptotic significance ^b	95% Asymptotic Confidence Interval	
				Lower limit	Upper limit
CHILD PUGH SCORE	0.758	0.089	0.031	0.584	0.932
MELD	0.776	0.094	0.021	0.592	0.960
MELD NA	0.766	0.102	0.026	0.566	0.965
MELD 3.0	0.797	0.080	0.013	0.639	0.955
MELD/LACTATE	0.583	0.124	0.486	0.341	0.826
MELDNa-AGIB	0.849	0.086	0.004	0.681	1.000

The test result variables: CHILD PUNTOS, MELD, MELDNa, MELD 3.0, MELD/LACTATE, MELDNa-AGIB have at least one tie between the positive true state group and the negative true state group.

a. Under the non-parametric assumption.

b. Null hypothesis: true area = 0.5

Figure 1. Comparative analysis among different scales in patients with variceal hemorrhage and hepatic cirrhosis.

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Validation of S-ANT for the diagnosis of minimal hepatic encephalopathy

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Introduction and Objectives: Hepatic encephalopathy (HE) is one of the most frequent complications of cirrhosis, minimal hepatic encephalopathy (MHE) is the initial stage and is characterized by the fact that it has no clinical data, its diagnosis is made with neuropsychological tests, the MHE produces a deterioration in the quality of life of patients and an increased risk of accidents. Hence, it is relevant to diagnose. Performing neuropsychological tests requires prolonged time, so validating an MHE count test that is easy, reproducible, and in less time is recommended. The simplified-animal naming test (S-ANT) test is performed by asking the patient to nominate 20 animals in one minute. In the reference cutoff for the non-Mexican population, a score lower than 15 suggests MHE.

We aimed to assess the validity of the S-ANT scale as a screening test in patients with cirrhosis without overt HE.

Materials and Patients: We present a prospective, descriptive, and analytical study of patients with cirrhosis of different etiology