A scoring scale for predicting intra-hospital mortality in patients with liver cirrhosis

Higinio T Mappala and Manuel Khelvin G Torres
Jose R Reyes Memorial Medical Centre, Philippines

Objective: The aim of this study is to determine the predictors of intra-hospital mortality in patients with liver cirrhosis identify significant risk factors and devise a scoring system to prognosticate patients with liver cirrhosis.

Methods: A retrospective study was conducted involving 196 patients diagnosed with liver cirrhosis admitted in Jose R. Reyes Memorial Medical Center during January 2011 to January 2014. Charts were reviewed and data such as age, sex, presence of bleeding or encephalopathy and blood parameters were gathered. Predictive factors were identified by univariate and multivariate analysis and were used to generate the scoring system. A receiver operating curve was used to generate the best cut-off score to predict mortality.

Results: A univariate analysis revealed the female gender, cirrhosis with Child Pugh class C, hepatic encephalopathy and creatinine has significance in predicting mortality among patients. Multivariate analysis objectified three independent predictors of mortality: Female gender, presence of hepatic encephalopathy and increased creatinine values, when 1 and 0 were used for the presence and absence of each factor, respectively, using a cut-off score of >1.08, based on the ROC.

Conclusion: Based on the independent predictors identified, a scoring system was designated to each of the significant variables and based on the ROC curve, a cut-off score of >1.08 with sensitivity of 84% and specificity of 67%, will predict intra-hospital mortality.

Etiology, clinical profile and predictors of mortality of acute-on-chronic liver failure in a tertiary hospital: A retrospective study

Engelbert Simon S Perillo, Agcaoili Jennielyn and Payawal Diana
Cardinal Santos Medical Center, Philippines

Acute-on-chronic liver failure (ACLF) is an increasingly recognized entity defined as a clinical syndrome in which two insults to the liver are operating simultaneously, one of them being ongoing and chronic and the other acute. The objective is to determine the causes and clinical profiles of ACLF at Cardinal Santos Medical Center in the Philippines and in so doing, find instruments to help physicians predict mortality. This retrospective study was conducted at the Department of Internal Medicine of Cardinal Santos Medical Center. This study included all the patients who met the inclusion criteria of ACLF based on the Asian Pacific Association for the Study of the Liver (APASL) criteria from 2013-2015. Comparison between the survivors and non-survivors was done using the Mann-Whitney U test as a statistical tool. Associations of sex, encephalopathy, ascites and acute insults to mortality were determined by the Fisher-Exact test. Logistic regression was used to determine the important factors to predict mortality. The leading acute insult identified was alcohol accounting for 25.8%. Mortality is associated with the following: Elevated bilirubin, elevated INR, low PT% activity, elevated AST, elevated ALT, elevated creatinine, elevated MELD and elevated MELDNa. Significant association between encephalopathy and mortality was detected at 5% level of significance. The probability of death in patients with ACLF increased with the rise in bilirubin, INR, AST, ALT or creatinine levels. Encephalopathy is associated to “death due to ACLF”. Based on initial analysis, the following factors are the significant predictors of mortality: MELD, MELDNa and INR.