

Ventricular Repolarization in Patients with Decompensated Liver Cirrhosis and its Relation to the in-Hospital Outcome: Electrocardiographic Study

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Abstract

Background: Prolonged ventricular repolarization has been documented in patients with chronic liver disease. The objective of this study was to study the electrocardiographic QTc interval in patients with decompensated liver disease and its relation to the in-hospital outcome.

Methods: We retrospectively studied 75 patients with hepatic encephalopathy. The QTc interval was measured in a 12-lead electrocardiogram obtained on admission.

Results: Patients were divided into two groups according to their clinical outcome during hospitalization. The first group included 53 (70.7%) patients who survived, and the second group included 22 (29.3%) patients who died. QTc interval was significantly prolonged in died patients than patients who survived ($p < 0.001$). There was insignificant difference between two groups regarding age, sex, smoking status, hypertension, diabetes mellitus and basal laboratory findings except for serum creatinine level ($p = 0.006$) and MELD score ($p = 0.033$).

Conclusions: In patients with hepatic encephalopathy, QTc interval was significantly higher in patients who died than in patients who survived, however, in multivariate logistic regression analysis, QTc interval, was not predictors of survival.

Keywords: Liver disease, QTc interval, ventricular repolarization