QTc PROLONGATION IN PATIENTS OF CIRRHOSIS AND ITS RELATION WITH SEVERITY OF CIRRHOSIS AND CIRRHOTIC CARDIOMYOPATHY
Prof Dr.MS Revathy, Dr. Chaitanya Katragadda
STANLEY MEDICAL COLLEGE

BACKGROUND AND AIM

In cirrhotic patients the most commonly encountered ECG pattern is prolonged QT interval. This is seen in 30-80% of cirrhotic patients and may lead to ventricular arrhythmias and sudden death. Cirrhotic cardiomyopathy fundamentally refers to systolic dysfunction, altered diastolic indices, and an impaired contractile response to stress in patients with end-stage liver disease and no known cardiac disease. The most commonly encountered ECG pattern in CCM is a prolonged QT interval.

Therefore, we sought to study QTc prolongation in cirrhotic patients, its relation with etiology and severity of cirrhosis and cirrhotic cardiomyopathy.

METHODS

- Prospective observational study
- Department of Medical Gastroenterology in Government Stanley Medical College and Hospital, Chennai, Tamilnadu.
- NOV 1st 2020 to NOV 1st 2021.
- 80 consecutive cirrhotic patients were included in the study.
- Exclusion criteria: Liver malignancy, IHD, Valvular heart disease, conduction defects, cardiac arrhythmias and congenital heart defects, taking drugs effecting QTc prolongation and Known case of Diabetes mellitus and hypertension
- All patients underwent 12 lead ECG, Transthoracic ECHO and Dobutamine stress ECHO

RESULTS

- Out of 80 patients included in the study 53 were males.
- Alcohol was the most common etiology for cirrhosis (38/80) followed by chronic hepatitis B infection (18/80). Mean age of patients was 49.8.
- Duration of cirrhosis <2 Yrs in 15, 2-5yrs in 25 and >5 years in 40.
- QTc prolongation was strongly correlating with severity of cirrhosis (p<0.001) noted in 61 out of 80 patients (76.25%). Two out of 9 patients with child A, 23 out of 32 in child B and 36 out of 39 patients with child C were having prolonged QTc.
- QTc prolongation strongly correlating with prolonged duration of cirrhosis but not with etiology of cirrhosis.
- Cirrhotic cardiomyopathy was observed in 13 patients (16.25%). Most patients belonged to CPS-C (12 of 13) status with one patient in CPS-B status and all patients had MELD>15.

CONCLUSIONS

QTc prolongation was the common ECG abnormality in cirrhotic patients with high prevalence in patients with prolonged and advanced cirrhosis. Cirrhotic cardiomyopathy prevalence is 16.25% noted commonly in patients with older age and advanced cirrhosis.