

## **Abstract**

**Background:** There is growing evidence to support the concept that HCV infection is a risk factor for developing type 2DM (T2DM) & that diabetes control could affect the prognosis of hepatic encephalopathy.

**Objective:** To study the relation between type of DM & HCV cirrhosis & to report any relationship between the outcome of hepatic encephalopathy & the glycemic control in the period before precipitation of encephalopathy.

**Methods:** A thirty selected diabetic, HCV cirrhotic patients with age range from 43:70 y (Mean: 55.87) admitted to the I.C.U. for hepatic encephalopathy were prospectively enrolled in this study. Cirrhosis was evaluated according to Child classification while encephalopathy was evaluated according West Haven criteria as well as RAS score. HbA1c was used to assess the glycemic control in the period before precipitation of encephalopathy.

**Results:** T2DM was more prevalent than type 1 in association with HCV (83.3%T2DM & 16.7%T1DM). Diabetes control plays no role in increasing the severity of cirrhosis (Non significant P value: 0.249). The diabetic HCV cirrhotic patients admitted for hepatic encephalopathy had shorter ICU stay when DM is well controlled medically in the period before precipitation of encephalopathy (P value: 0.001). Also the mortality was decreased markedly in association with diabetes control (P value: 0.01).

**Conclusion:** HCV viremia had a higher risk of T2DM than T1DM. Diabetes control has no role in increasing the severity of HCV cirrhosis. In HCV cirrhotic diabetic patients well controlled DM could improve the ICU outcome (shorter ICU stay & less mortality) when admitted for hepatic encephalopathy.

**Key words:** *HCV cirrhosis, Child classification, Hepatic encephalopathy, DM, HbA1c.*