THE PREVALENCE AND PROGNOSTIC VALUE OF LIVER FUNCTION ABNORMALITIES IN PATIENTS WITH CHRONIC SYSTOLIC HEART FAILURE

Yu Shengbo  Remmin Hospital of Wuhan University

Background The prevalence and prognostic value of liver function abnormalities in patients with chronic systolic heart failure (HF) have not been systematically evaluated.

Methods and results 16,681 in-hospital patients from 12 hospital of Hubei province, China, with diagnosis of chronic systolic HF and LVEF<50% were enrolled. All patients were followed up by telephone contact. Patients were divided into death and survival groups according to the result of follow-up. Over media 3 years follow-up, 6,453 (38.69%) patients died. The prevalence of liver function abnormality was 71.94% (12,001/16,681). The elevations of direct bilirubin, \(\gamma\)-glutamyl-transferase and alanine aminotransferase were the most common which accounts 33.37% (4,863/14,574), 32.51% (4,357/13,341) and 30.12% (5,024/16,681), respectively. The abnormality of alkaline phosphatase was less, the elevation and declination of which accounts 3.82% (474/12,397) and 4.51% (559/12,397) respectively. The prevalence of low albumin and total bilirubin elevation was 23.24% (3,408/14,664) and 19.57% (3,231/16,681). Low albumin (HR 0.411, 95% CI 0.225 to 0.752; \(p=0.004\)) and elevated direct bilirubin (HR 1.785, 95% CI 1.625 to 1.986; \(p=0.037\)), total bilirubin (HR 1.358, 95% CI 1.034 to 1.783; \(p=0.028\)) were determined as the independent risk factors of total mortality. Study revealed correlations of LVEF with direct bilirubin (\(r=-0.235, p<0.0001\)), total bilirubin (\(r=-0.209, p<0.0001\)), albumin (\(r=-0.107, p<0.0001\)) and right ventricular end-diastolic diameter (RVDD) with direct bilirubin (\(r=0.149, p<0.0001\)), total bilirubin (\(r=0.154, p<0.0001\)), albumin (\(r=-0.086, p<0.0001\)).