PREDESCI Study: Long-Term Treatment with Non-Selective β-Blockers Beneficial for Patients with Compensated Cirrhosis and Portal Hypertension

Continued treatment with non-selective β blockers (NSBB) cuts down the incidence of decompensation or death in patients with compensated cirrhosis and clinically significant portal hypertension (CSPH), stated the PREDESCI (study on β blockers to prevent decompensation of cirrhosis with portal hypertension) study. These findings are nothing less than a landmark innovation in the management of cirrhosis patients and suggests that patients with compensated cirrhosis need regular screening for development of CSPH. Detection of CSPH in such patients must lead to prompt initiation of NSBB.

Gradual progression of compensated liver cirrhosis to decompensated one leads to poor prognosis in the patient. Clinically significant portal hypertension is the key determinant of decompensation. Clinical decompensation of cirrhosis is associated with poor prognosis. Studies have suggested that β-blockers might prevent decompensation in patients with CSPH. Researchers recently assessed whether lowering HVPG with β- blockers would decrease the risk of decompensation or death in compensated cirrhosis patients with CSPH.

PREDESCI was a double-blind, randomized controlled trial conducted across eight hospitals in Spain. The study population comprised of patients with compensated cirrhosis and CSPH without high-risk varices. HVPG was measured along with the assessment of acute HVPG-response to intravenous propranolol in all study subjects. Responders (HVPG-decrease ≥10%) were randomized to propranolol (up to 160 mg twice a day) or placebo and non-responders were randomized to carvedilol (≤25 mg/day) or placebo. Incidence of cirrhosis decompensation (defined as development of ascites, bleeding, or overt encephalopathy) or death were the primary outcomes of interest. Death in compensated cirrhosis is usually unrelated to the liver, hence; an intention-to-treat analysis was conducted considering deaths unrelated to the liver as competing events.

A total of 631 patients were evaluated and 201 were randomized during this study. Of the entire study population, 101 patients were treated with placebo and 100 were treated actively (67 propranolol and 33 carvedilol). The incidence of primary outcomes was significantly lower in patients treated with β-blockers vs. those treated with placebo. A reduction in the rate of ascites (HR=0.44, 95%CI=0.20–0.97, p=0.0297) was the principal reason behind the lower rates of primary outcomes in the active treatment group. Overall, the incidence of adverse events did not vary across both the study groups. Six patients (four in the β blockers group) experienced severe adverse events.

This new indication of NSBB might be a scene changer, influencing the patient outcomes, reducing the health-care burden and costs and paving way for future clinical guidelines. Meanwhile, non-invasive techniques that can accurately detect CSPH in patients with compensated cirrhosis are warranted. Similarly, specific biomarkers that can be used to track the patient response to therapy should be identified, suggested to the researchers.

*Lancet. Mar, 22, 2019 (Published Online); DOI: 1 0.1016/S0140-6736(18)31875-0.*