

Probiotic *Saccharomyces boulardii* in the Treatment of Small Intestinal Bacterial Overgrowth in Decompensated Cirrhosis

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Objectives: Small intestinal bacterial overgrowth (SIBO) is often detected in cirrhosis and is associated with the development of a number of its complications. Currently, there is no data on the effectiveness of drugs in the treatment of this disorder in this disease. The aim of the study was to evaluate the efficacy of probiotic *Saccharomyces boulardii* in the treatment of SIBO in cirrhosis.

Methods: This was a study in which 37 patients with decompensated cirrhosis and SIBO were randomized into 2 groups in a ratio of 1.5 to 1. The probiotic group included 24 patients who received probiotic *Saccharomyces boulardii* at a dose of 250 mg 2 times a day for 3 months in addition to standard therapy. The control group included 13 patients

who received placebo for 3 months in addition to standard therapy. The use of antibiotics was prohibited. The patients were blinded. The presence of SIBO was assessed on the basis of a lactulose hydrogen breath test.

Results: The mean age of the included patients was 50.5 ± 9.9 years. There were 14 men and 23 women. Cirrhosis was alcoholic in 19 cases, viral in 5 cases, metabolic in 2 cases, mixed etiology in 7 cases, cryptogenic in 4 cases. After 3 months of probiotic or placebo use, SIBO was detected in 4 (16.7%) patients in the probiotic group and in 10 (76.9%) patients in the control group ($P = 0.001$). Moreover, the incidence of ascites in the probiotic group decreased from 83.3% to 45.8% ($P = 0.007$) and did not change significantly in the placebo group (69.2% vs. 84.6%; $P = 0.007$). No adverse effects of probiotics or placebo use were reported.

Conclusions: Probiotic *Saccharomyces boulardii* is effective and safe in the treatment of SIBO in decompensated cirrhosis.

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