

Effect of probiotic in nonalcoholic fatty liver disease in patients referred to Imam Khomeini hospital

Abstract

Background and objective: Non-alcoholic fatty liver disease (NAFLD) is the most common chronic liver disease correlated to overweight, obesity and insulin resistance. Recently, the use of probiotics has been suggested for these patients which have considerable outcome. The aim of current study is to evaluate the effect of probiotics on patients with NAFLD.

Methods: In this randomized clinical trial, 67 patients with NAFLD were recruited and randomly assigned to groups receiving probiotics (Gerilact, 500 mg, twice daily) or placebo (with the same dose) for sixty days. Weight, body mass index (BMI), lipid profile, FBS, ALT and AST and sonographic grading were evaluated before and at the end of the study. The final analysis was done with 33 subjects in intervention and 28 in placebo group.

Results: In both groups there was significant decrease in weight and BMI with no difference between groups. In intervention group there was significant decrease in ALT ($p=0.002$) and AST ($p<0.001$) levels with significant decrease in ALT ($p=0.01$) in placebo group. There was significant decrease in cholesterol levels in intervention compared to placebo group ($p=0.01$), but there was no significant changes in FBS, triglycerides, LDL and HDL levels. Fatty liver grade was improved in 63.6% in intervention and 46.4% in placebo group.

Conclusion: probiotics caused significant improvement in ALT, AST and cholesterol levels, but had no effects on FBS, triglycerides, LDL and HDL. Overall, treatment with probiotics is effective, safe, with low cost and well tolerated in long term use.

Keywords: Non-alcoholic fatty liver disease; Aminotransferases; Lipid profile; Probiotic