



Investigating effect of *Helicobacter pylori* treatment on improvement of non-alcoholic fatty liver parameters: a randomized trial

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Abstract

Background and objective: The correlation between the eradication of *Helicobacter pylori* (HP) and non-alcoholic fatty liver disease (NAFLD) is a controversial one. The aim of this study is to investigate the effect of *Helicobacter pylori* treatment on liver function tests and lipid profiles and to compare its effects with exercise therapy and diet alone.

Method: This was a double-blind randomized clinical trial conducted at Qazvin University of Medical Sciences. One hundred patients with NAFLD having a positive test for urea breath testing were randomly assigned into one of the intervention and comparison groups. The diet and physical activity program were given to two groups of patients for 8 weeks, three sessions per week. In addition to the above therapy, the patients in the intervention group also received HP treatment for 2 weeks. The data corresponding to anthropometric and clinical features before and after the intervention were collected in both groups and compared using appropriate statistical methods.

Results: After the treatment interventions, the variables of weight, BMI, blood glucose, triglyceride, AST, ALT, total cholesterol, and LDL-C were significantly decreased in both groups ($p < .05$). In the between-group comparisons, only ALT was significantly lower in the intervention group (HP) ($p < .05$).

Conclusion: Findings of this study showed that the eradication of *Helicobacter pylori* could significantly improve the ALT index, but it had no additional effect on changes in metabolic indicators.

Trial registration: Registration number: IRCT2015042020951N2

Name of trial registry: The study of treatment of *Helicobacter pylori* in improvement of non-alcoholic fatty liver disease

The date of registration: 2015-05-12

Where the full trial protocol can be accessed: <https://fa.irct.ir/trial/18489>

Keywords: Non-alcoholic fatty liver disease, *Helicobacter pylori*, Alanine transaminase, Aspartate aminotransferases

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