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### Aerobic exercise along with low-caloric diet is more effective than low-caloric diet alone in treatment of patients with non alcoholic steatohepatitis

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# **Aerobic exercise along with low-caloric diet is more effective than low-caloric diet alone-in treatment of patients with non alcoholic steatohepatitis**

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## **Abstract**

**Introduction:** Nonalcoholic Steatohepatitis (NASH) is part of a broad spectrum of nonalcoholic fatty liver disease. To date, no medical treatment has been proven. We aimed to compare the effect of aerobic exercise along with diet and diet alone on serum aminotransferases levels, anthropometric indices, and cardio respiratory fitness in patients with NASH. **Methodology:** Twenty-three NASH patients with the age of range of 25 to 50 years old were randomly divided in two groups and underwent aerobic exercise along with diet (n=12) and diet alone (n=11). In this study, low-caloric diet in both groups included 500 kilocalories of energy less than estimated daily energy requirement. The first group addition to diet, participated in aerobic exercises consisted of walking, jogging and running, for a period of 8 weeks, 3 days a week with 55–60% heart rate reserve. Serum aminotransferase levels, anthropometric indices, and peak oxygen consumption were measured before and after eight weeks of the intervention. Data were analyzed by Paired Samples and Independent-Samples T Test, at a significance level of  $P < 0.05$ . **Results:** Although, no significant difference was noted in patients on diet alone, serum ALT and AST levels were significantly decreased in patients underwent diet and exercise. Anthropometric measurements were decreased and peak oxygen consumption was increased significantly in both groups; however, there were significant difference between two groups in variables WC, WHpR, WHtR and  $VO_2$  peak. **Discussion:** Aerobic exercise along with low-caloric diet may be more effective than low-caloric diet alone-in treatment of patients with non alcoholic steatohepatitis.

**Keywords:** Aerobic training, low-caloric diet, Aminotransferase, Non-alcoholic Steatohepatitis.