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## The Effect of Eight Weeks Elected Aerobic Exercise on the Levels of (AST, ALT) Enzymes of Men Patients with Have Fat Liver

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### Abstract

The purpose of present study is the effect of eight weeks elected aerobic exercise on the levels of (AST, ALT) enzymes of men patients with have fat liver, age's 20 to 45 in shooshtar city. that providing of lack of control it will have the garlic of large virulent to destroy liver fiber and cell destruction as usually hard and rough liver fiber and it density is aspired in stenography. Also the measure of cholesterol and triglyceride with liver enzymes increase in these patients. in this study the numbers of 24 patients of referred to sonography clinics of shooshtar town with the distinction of fat liver disease selected by randomly and divided to two groups of control and experimental. Measurement of (AST, ALT) diseases in two groups as pre-test were done. After eight week aerobic exercise the analysis and resolution of data were done by computer and with use of SPSS soft ware and statistical methods of deduction (t-test) and descriptive. The results of comparison between two groups showed that eight weeks aerobic exercise with  $\alpha \leq 0.05$  it cause to be the decrease of measure of (AST,ALT) of liver cells of experimental group.

*Keywords:* Aerobic Exercise, AST, ALT, Fat liver;

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### 1- Introduction

Liver is the largest organ of the body that weighs approximately 1 to 1.5 percent of meagre mass. The size of liver is variable and it is usually proportionate to the form of the body. Supplying blood to the liver is two some(twofold): nearly %20 of its blood circulation is oxygen-rich blood that passes through hepatic artery, and %80 of that is nutrient – rich blood which comes from portal vein (is related to stomach, garbage, pancreas and lien). Liver has a central role in fat metabolism, it with effect on blood free fat acids, is responsibility of storage and take out of fats and lipoprotein. Nevertheless a pate physiology factor that leads to non-alcoholic fatty liver malady are not well-diagnosed. Fatty live malady according its providing factors is of two kinds: non-alcoholic liver and alcoholic liver. Fatty liver malady is known as fatty liver syndrome and liver steatuz (Bronvald., 2009).growing instances of provisional researches and studying show that physical activity and exercises provide a hopeful treatment for fatty liver patients(Aiger.,2008).therefore attends to the risks of fatty liver patients and its growing process in today society and also the recognition of the effect of exercise on this malady, this research is done experimentally in two fields of medical and sport, it is hoped to be a health of the society.

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## 2- Methods

This research is practical and its plan has been done experimentally with pre-test and post-test in experimental and control groups. Statistical population of this research were 120 fatty liver patients of age 20 to 45 years old. 24 people of them were select as statistical sample and were divided to experimental and control groups. The maladies were diagnosed by sonography as a standard tool is known as credible and end of record. Blood sampling has been done for the evaluation of the liver enzymes. Also in the part of exercise, 45 minutes for aerobic exercises, 5 sessions per week with intensity of %50 - %70 vo2max in the first 4 weeks was followed that with observing the principle of overloading, it reached to %70 of vo2max in 4 final weeks. Analyzing the data was done by SPSS statistical operations were done by excel soft ware and SPSS® (version 17) and statistical method of independent t-test with error (fault) modulus of a  $\leq 0/05$

## 3- Results

The results after 8 weeks aerobic exercise show that there is significant difference (p-value = 0/001) in the significant level of ( $\alpha \leq 0/05$ ) between the liver enzymes AST of two groups. The information on the left side of the following chart shows that experimental group had a greater change in comparison with control group. This result show that experimental group is more effected than aerobic exercise (chart1&2).

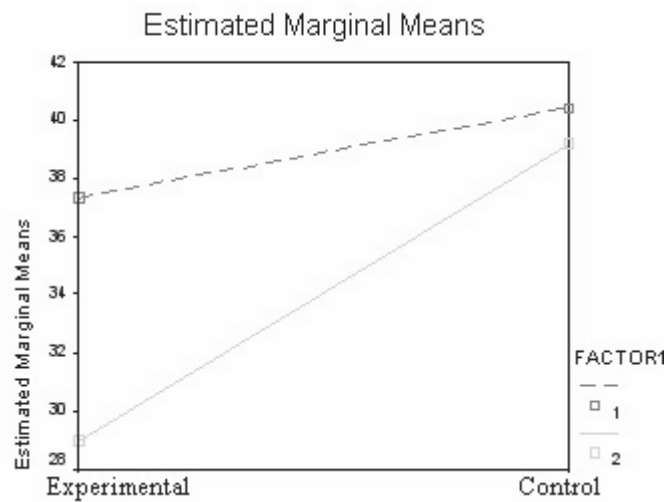


Chart1: mean of score difference of AST two groups.

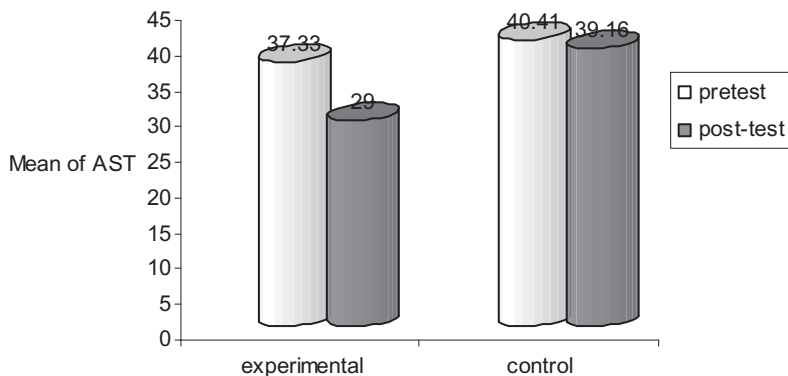


Chart2: mean of AST score of two groups in pre-test &post-test

On the other hand the result of the research show that there is significant difference (p-value = 0/001) in the significant level of ( $\alpha \leq 0/05$ ) between liver enzyme ALT of two groups. The data of this result are mentioned clearly (chart3&4).

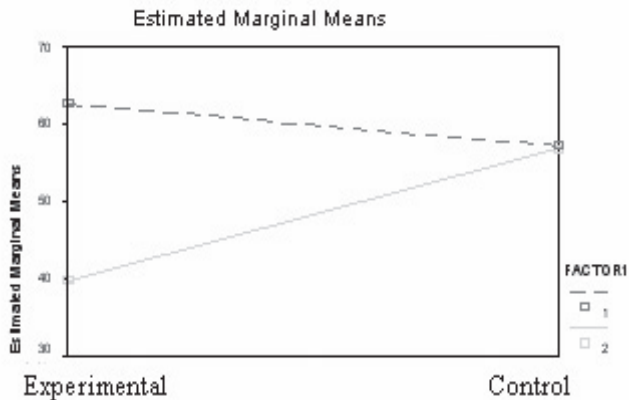


Chart3: mean of score difference of AST two groups.

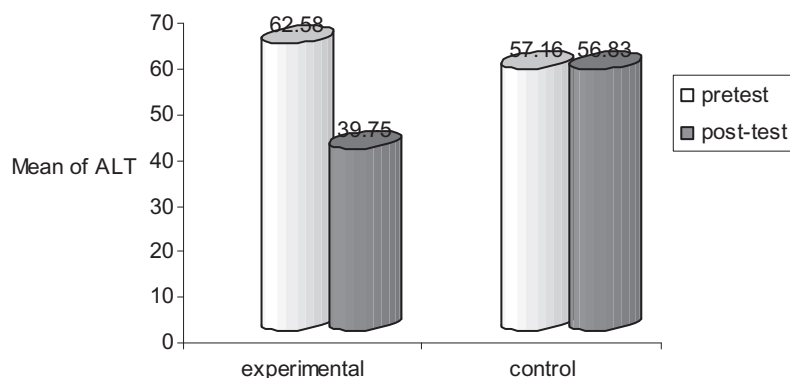


Chart4: mean of ALT score of two groups in pre-test & post-test

#### 4- Discussion and conclusion

The registered records in previous research show that the balances of liver enzymes in fatty liver patients are high. On the other hand, the gained results of the present studies show that the amounts of these enzymes have been decreased. These results are in accordance with (Charbonneau, 2007) and (piano, 2007). As far as the main aim of this research is to help the treatment process of fatty – liver patients and the gained results of the research are classified and to some extent standard, could be effective in decreasing liver enzymes, as the result, patients are recommended to do aerobic exercises to be health.

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