

The comparison of Orlistat and metformin in the treatment of fatty liver in non-diabetic patients

Abstract

Background and objective: Fatty liver is a reversible accumulation of fat vacuoles in liver cells that is characterized by inflammation of the liver. Fat in the liver is normal, but if the amount of fat is more than 5 to 10 percent of the total weight of the liver, it became fatty liver disease. Fatty liver can lead to advanced liver fibrosis and cirrhosis. So far, only limited treatment to diet and weight loss, but results were not acceptable. Due to the high sensitivity of disease and low studies in this field, our objective of this study was to compare the effect of Orlistat and metformin in the treatment of fatty liver in patients without diabetes.

Methods: 92 non-diabetic patients with fatty liver that referred to Imam Khomeini hospital clinic, were selected. Patients were divided into 2 groups A and B. The patients in group A who were 47 prescribed metformin and group B who were 45 prescribed Orlistat. Questionnaires were completed. Blood samples were collected before and after treatment. Patients were evaluated before and after treatment by ultrasound sonography. Finally, the two groups in terms of improving liver function were assessed.

Results: ALT changes in the metformin group before and after treatment, was from 61.62 to 45.4 there is a statistically significant difference. AST changes before and after the treatment, was from 31.4 to 22.2, there was a statistically significant difference. Cholesterol changes before and after the treatment, was from 177.4 to 173.8, there was not a statistically significant difference. Orlistat changes in ALT before and after the treatment, was from 73.62 to 42.0 there is a statistically significant difference. AST changes before and after the treatment, was from 41.51 to 23.38, there was a statistically significant difference. Cholesterol changes before and after the treatment, was from 222.37 to 206.8. Against the metformin group there was a statistically significant difference.

Conclusion: Orlistat is more effective on weight loss, liver enzyme levels in compared with metformin.

Keywords: Orlistat, metformin, fatty liver, non-diabetic patients