

Comparison of Physical Activity and Body Mass Index in Patients with and without Non-Alcoholic Fatty Liver Disease

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Abstract

Background and Objective: The prevalence of Non-Alcoholic Fatty Liver Disease (NAFLD), as one of the health problems, and its complications are increasing. Inadequate physical activity and obesity are the determinants of the incidence of NAFLD. This study aimed to compare physical activity and Body Mass Index (BMI) in both groups of patients with and without NAFLD in Tehran.

Materials and Methods: In this cross-sectional study, 170 outpatients aged 20 to 55 who referred to Taleghani Hospital of Tehran for sonography participated. They were selected using convenience sampling method. Using completing the questionnaires through systematic interviews with individuals, socio-demographic characteristics, complain and the level of physical activity were assessed. Anthropometric measurements and ultrasound were also performed. Data were analyzed using descriptive methods for descriptive data analysis, T-test and Chi-square tests to compare of the means between groups and to determine the relationship between variables.

Results: Most patients with NAFLD (60%) had intense level of physical activity and only a small percentage of them (11.3%) had low level of physical activity. While in the group of patients with NAFLD, most people (36.7%) had moderate level of physical activity and 28.9% had low level physical activity. The difference between the level of physical activity in the two groups was significant ($p=0.001$). The mean (SD) BMI of patients with NAFLD was higher than patients without NAFLD (32.8(6.6) vs. 24.4(3)) ($p<0.001$).

Conclusion: Considering the prevalence of obesity and inadequate physical activity in patients with NAFLD, life style change recommended through designing and implementation of educational interventions to increase their knowledge and improve attitude, also physical activity interventions as option with diet to improve clinical status.

Keywords: Non-Alcoholic Fatty Liver Disease, Physical activity, Body Mass Index, Obesity