



University of Zabol

Management of graduate education

Faculty of Veterinary Medicine

Department of Pathobiology

The Thesis Submitted for the Degree of DVM

**Histopathological study of anti-fat accumulation of pomegranate peel extract
on fatty liver lesions in mice fed with a high-fat diet.**

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Abstract

Non-alcoholic fatty liver is one of the most common metabolic disorders that can lead to serious liver problems. This study was conducted with the aim of investigating the protective effects of pomegranate peel extract on fatty liver lesions caused by high-fat diet in mice. 20 mice were divided into 4 groups, respectively, the control group, the high-fat diet group with edible oil at the rate of Δ mg per kilogram of body weight, the HFD + PPE group, and the PPE group. They were given normal diet along with the extract. The daily amount of pomegranate peel extract was 5 mg per kilogram of body weight of the mice. Determining the amount of extract and the amount of oil received was experimental. The results showed that the consumption of pomegranate peel extract effectively prevented the histopathological changes of the liver in mice. Also, pomegranate peel extract was able to reduce the damage caused by high-fat diet by reducing fat accumulation in the liver. These findings show that pomegranate peel extract can be proposed as a natural therapeutic agent to prevent and reduce fatty liver damage caused by feeding with high fat diets.

Key words: fatty liver, pomegranate peel extract, mice, liver tissue