

# Pediatrics, Pediatric Gastroenterology & Nutrition

March 23-25, 2017 Orlando, USA

## The effect of lavender hydroalcoholic extract on liver's enzymes and histology

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The liver has a key role in the regulation of many physiological phenomena. Due to the use of traditional medicinal plants, in this study the effects of lavender (*Lavandula officinalis*) extract on tissue and liver enzymes were investigated. In this experimental study, 50 mature female mice were divided into 5 groups, each group including ten adult female Balb/C mice. The control group did not receive any extract, the placebo group received 0.5 cc normal saline every other day and 3 treatment groups received hydroalcoholic extract of lavender with 50, 100, 200 mg/kg/2 days doses that was used interperitoneal injection for 20 days. 20 days later, blood samples were taken from all groups and the liver enzyme ALT, AST and ALP were measured. Liver tissue was studied by light microscopy in all groups. Obtained data were analyzed using SPSS program ( $p < 0.05$ ). ALT enzyme increased significantly in 200 doses ( $p < 0.05$ ). AST enzyme levels at doses of 100 and 200 mg/kg compared to the control group showed a significant decrease and ALP enzyme concentration in a dose of 200 compared to the control group showed a significant decrease ( $p < 0.05$ ). Observations in sections showed that the liver tissue in 50 and 100 were not significant pathological changes but obvious pathological changes of liver tissue (necrotic tissue) observed in 200 doses group.

### Biography

Mehrdad Modaresi is currently working as an Associate Professor in the Department of Animal Science at Islamic Azad University, Iran. His research fields are herbal drugs and animal physiology. His research work reflects in wide range of publications in various national and international journals. He has completed his PhD from Islamic Azad University, Research and Science Branch.

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