

Abstract:

Propolis, or glue bee is one of the most useful products. It is the physical structure of colloidal and resinous substance in terms of physical structure which composed of the various components, such as aromatic acids and their esters, flavonoids and terpenoids is formed. Propolis has anti-inflammatory and antimicrobial properties because of a high percentage of flavonoids and is effective for treatment of autoimmune diseases and control of tumors. The aim of this thesis is histopathological study of anti-inflammatory effects of Iranian propolis on hepatitis in female mice. To perform this experiment, a total of 25 female mice of Balb/C was used. Animals body weight was 25-30 g. The mice was with proper food and water *ad libitum* throughout the experiment. All of the mice were housed under standard environmental conditions (temperature 25-29°C, 12 h light and 12 h darkness cycles). The mice were randomly divided into 5 groups with 5 mice in each group (n = 5) as follows:

The group treated with distilled water (placebo), the group treated with distilled water plus ethanol 70% at a ratio of 5 to 1, the group treated with hydroalcoholic extract of propolis(HAEP), the group treated with xylene, the group treated with xylene and propolis. Hydroalcoholic extract of propolis(HAEP) were given by gavage to mice at a concentration of 100 mg/kg of body weight for 10 consecutive days. Also in the control groups, distilled water and distilled water plus ethanol 70% was administered orally with the same amount to propolis. Xylene was injected at a concentration of 4 ml/kg respectively, intraperitoneally in 7th day. After the experiment was done, in 11th day, mice were anesthetized by ether and after euthanasia, the bodies were opened and the livers were removed and placed in formalin10% solution. liver tissue sections were prepared and evaluated under the microscope in terms of the severity of lesions the number of inflammatory foci.

After the results were statistically analyzed with SPSS, there was a significant difference between the data and we find out propolis is able to reduce significantly the number of inflammation foci in the liver lesions.

Keywords: Propolis, Xylene, Anti-inflammatory effect, Inflammation, Liver



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**Histopathological study of anti-inflammatory
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