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The Preventive Effect of Date Palm (Phoenixdactylifera) Seed and Fruit Hydroalcoholic Extracts on Carrageenan-Induced Inflammation in Male Rat's Hind Paw

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Abstract : Background and Objective: The side effects of NSAIDS drugs have caused the increasing interest of scientists in herbal medicines as alternative treatment. In this study, the effect of anti inflammatory of seed and fruit of date palm hydroalcolic extracts, due to having antioxidants, was studied. Materials and Methods: In this study, the extraxts of date palm seed and fruit were prepared by the maceration method in 70% alcohol. Eighty male rats Wistar, divided into 10 groups of eight in each, 4 groups received different doses (100, 200, 400, and 600 mg/kg) of seed extract, and 4 other groups different doses (100, 200, 400, and 600 mg/kg) of fruits extract of the palm, and the positive control aspirin (300mg/kg) and the negative control group saline (5ml/kg) via injection intraperitoneally. Half an hour later, all animals received 100 µl of 1% carrageenan into the rats hind paw subcutaneous. The changes in rats paw edema was measured by plethysmometer every hour for five hours. Results: The effect of all of the doses of date palm seed extract on edema were less than aspirine ($P<0.05$). But there was no significant difference between the group that received 400 and 600 mg/kg of date palm fruit extract when compared with the aspirin group. The Dose 400 mg/kg of fruit extract showed the most anti-inflammatory effect, and it was assignded as the best dose. Conclusion: It is likely that with further studies on different model of animals and also on the human model, the palm fruit extract could be used for pain treatment.

Keywords : palm, inflamentory, date, aspirin, karageenan
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