



3<sup>rd</sup> National Congress on Medicinal Plants  
14, 15 May 2014  
Mashhad- Iran



ANTI-INFLAMMATORY EFFECT OF MARHAME-MAFASEL POMADE IN RATS

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Inflammation is a protective response of body against invading foreign agents and necrotic tissue and can lead to tissue damage. According to Iranian traditional medicine texts, Marhame-Mafasel Pomade which consists of *Arnebia euchroma* L. and *Matricaria chamomilla* L. as major compounds could be beneficial in joints inflammation treatment [1, 2]. In this study, 72 male rats were divided to 3 groups of control, inflammation without treatment (non-treatment) and inflammation with treatment. For inflammation induction, injection of formalin to rat paw, xylene (i.p.) and acetic acid to ear were administered. In treatment group Marhame-Mafasel Pomade, was used on rat paw topically, 30 min before inflammation. To assess the degree of inflammation, Evans blue dye is injected (30mg/kg) through the heart and its penetration into legs, ears and peritoneal fluid were measure. In addition to the mentioned method, assessment of inflammation in the foot was used via measuring the foot diameter. In present study, mean absorbance of Evans blue in treatment group ( $0.046 \pm 0.0048$ ) significantly different compared to non-treatment group ( $0.084 \pm 0.0032$ ) ( $p < 0.05$ ). Also mean foot diameter in treatment group ( $0.0771 \pm 0.015$ ) was shown significant difference compared to non-treatment group ( $0.1503 \pm 0.017$ ) ( $p < 0.05$ ). Also in Peritonitis, the mean absorbance of Evans blue in treatment group ( $0.186 \pm 0.019$ ) was significantly lower than non-treatment group ( $0.237 \pm 0.029$ ) ( $p < 0.05$ ). In ear inflammation, Marhame-Mafasel Pomade doesn't shown decrease in inflammation. As a result of this study, Marhame-Mafasel Pomade reduces inflammation in the rat foot. In addition, systemic absorption also reduces inflammation of the peritoneum.

**References**

- [1] Zargari A. Medicinal plants. 7th ed: Tehran University Press; 2011. PP: 185- 186- 188- 189 -534-535. [Persian]  
[2] Valnet J.; *Phytotherapie*: 2004, 4-6, 32.