

## Effect of compound cream, a mixture of honey, fish oil, *Hypericum perforatum* L. and *Achilea mille folium* L. on full thickness skin wound in rat

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**Background and Aims:** Wound healing as a complicated process was always the topic discussion in the science of surgery. Many new chemical and herbal drugs have recently been introduced to heal the wounds. The first of them is Honey that is saturated mixture of monosaccharaides such as fructose and glucose. Fish oil has vitamins A, D and E. In the Iranian traditional medicine, *H. perforatum*, a medicinal herb, was used to heal wound. The influence of honey, fish oil, *A. millefolium* and *H. perforatum* on wound healing was separately investigated. But, there is no experimental study about the cream containing those 4 ingredients on wound healing. The aim of the present research is to investigate the healing effect of the experimental four-ingredients-cream on full-thickness wound in rats.

**Methods:** This experimental study was conducted on 21 male wistar rats (mean weight 270g). First, four full-thickness wound were induced using 7mm biopsy punch in both sides of the rats, then rats were randomly kept in 3 groups of 7 rats each. One group was considered as control group, the second as positive control (phenytoin group) and the last one received ointment treatment. The size of the wound was measured by Ferguson method in the third, sixth, ninth, twelfth days. The results between groups were analyzed with ANOVA test.

**Results:** The average percentages of wound healing in the control group in the third, sixth, ninth, twelfth days were 21.37%, 37.87%, 67.39% and 77.17%, respectively and the results in positive control group during the same time were 24.98%, 34.21%, 70.74% and 88.55% while in the treatment group they were 28.41%, 45.63%, 72.95% and 96.51%, respectively. A significant difference between controls group and treatment group was observed ( $P < 0.05$ ).

**Conclusions:** according to the finding this treatment cream speedup the wound healing.

**Keywords:** Honey; Fish oil; *Hypericum perforatum* L; Wound healing