

Original Paper

Effect of the *Lavender*, sesame oil, combination of *Lavender* with sesame oil and silver sulfadiazine on the burn wound healing in mice

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Abstract

Background and Objective: Burn is one of the leading causes of mortality in the world. This study was done to determine the effect of the lavender, sesame oil, and combination of *Lavender* with sesame oil and silver sulfadiazine on the burn wound healing in mice.

Methods: In this experimental study, 30 male adult albino mice were randomly allocated into 5 groups as follows: the negative control group (physiology serum); the positive control group (silver sulfadiazine); the first experimental group (sesame oil), the second experimental group (combination of *Lavender* with sesame oil) and the third experimental group (*Lavender* oil). Second degree of burn wound healing take place using hot sheet with a diameter of 2 cm. wound treatment was done in five groups in 21-day treatment period. The wound diameter size and restoration percentage were measured on days 1, 3, 6, 9, 18, and 21. Some mice were euthanized and the samples of wounds were used for histopathological studies.

Results: The percentage of wound healing significantly increased in groups of silver sulfadiazine, combination of *Lavender* with sesame oil, *Lavender* oil and sesame oil in compared to control group ($P < 0.05$). The improvement percentage was seen in sulfadiazine and combination of *Lavender* with sesame oil groups in compared to negative control group. The level of tissue restoration based on the accumulation of collagen, fibroblasts, re-epithelialization were seen in sulfadiazine, combination of *Lavender* with sesame oil, *Lavender* oil and sesame oil, respectively.

Conclusion: Combination of *Lavender* with sesame oil similar to silver sulfadiazine has tissue restoration effect on burn wound healing in animal model.

Keywords: Burn wound, Wound healing, *Lavender* oil, Sesame oil, Silver sulfadiazine, Mice

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