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The effect of *Malva sylvestris* cream on burn wound injury

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Burn injury is one of the most health-threatening problems in the world. *Malva sylvestris* flowers have high mucilage content and are used as a remedy for cut wound, dermal infected wounds in Iranian folklore Medicine. The purpose of this study was to investigate the effect of *M. sylvestris* cream on the second degree burn injury in rats. Five groups of 10 rats per group were burned with hot metal plate. Animals were administrated with topical as control, normal saline, standard silver sulfadiazine 1% (SSD), 5% *M. sylvestris* and 10% *M. sylvestris* in separate groups. Wound area, percentage of wound contraction, histological and bacteriological assessments were evaluated. Wound sizes were not significantly different among groups on 1st, 3rd days after burn injury, while it was significantly different among groups after 7th day of the post-burn injury. The average area of wound on the 15th day was 7.5 ± 2.9 , 6.7 ± 2 , 10.5 ± 1.6 , 4.7 ± 2 , and 4.5 ± 2 cm² for base cream, normal saline, SSD, 5% *M. sylvestris* and 10% *M. sylvestris*, respectively. The results of histology exhibited well-formed horizontally-oriented collagen fibers in *M. sylvestris* topical treatment group. Microorganisms existed in the SSD group were most probably *Staphylococcus epidermidis* and for NS group was *Staphylococcus saprophyticus*. *Malva sylvestris* cream improves histological changes of tissue components in the process of healing when compared with SSD cream. So, it can be used as a topical treatment agent for burn wound.

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