

Comparison of different concentrations of calendula officinalis gel on cutaneous wound healing (Article)

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Abstract

Lots of biological dressings and indigenous medicines have been reported to possess wound healing properties. Calendula officinalis (marigold) has many pharmacological properties. It is used for the treatment of skin disorders, pain and also as a bactericide, antiseptic and antiinflammatory (8). In this investigation, the effects of different concentrations of Calendula officinalis gel on histological and biomechanical changes of skin are studied. Seventy-five mature male rats were randomly divided into three groups (control, placebo, and treatment group). Under sterile conditions, a 2x2-cm piece of cervical skin for histopathological groups and a rectangular shape with a metal ruler from cervical to lumbar region for biomechanical groups, were excised in each animal. Treatment group received a daily topical application of 5%, 7%, and 10% C.officinalis gel, the placebo group received a daily topical application of the base gel, and the control group received no treatment during this experimental study. Fourteen and 21 days later, the rats were euthanized and biopsies were taken from the site of the initial incisions and samples were collected for histopathological and biomechanical investigation. Histopathological and biomechanical restorations in the group treated with 7% gel were significantly more than the placebo and control group. Upper and lower doses seem to be less effective, although the reasons for this remain unclear.

Author keywords

Calendula officinalis gel; Histopathological and biomechanical restorations; Medicines