Albusite: A novel synthetic gel for promotion of skin wound healing in rats

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Abstract

The current study was performed to evaluate the effect of Albusite gel on the healing process of excisional wounds in diabetic and control rats. Fifty-two Sprague Dawley male rats were used to evaluate the effects of Albusite Gel (synthetic gel) on the healing of full-thickness skin wounds. The control group (n = 2 6) and study group (n = 26) were divided into two groups (n = 13). Wounds were assessed by wound measurements and collection of samples at 9 (A, C) and 21 days (B, D) post-wounding to evaluate the healing process. Variables of interest were gross and microscopic histopathological characteristics were reflective of wound healing. Topical Albusite gel was applied for wound A and B, once a day. Each rat was anesthetized and a round full thickness excisional wound with 150 cm^2area was performed on the right dorsolateral side of each rat. There was little difference between the case and control groups. Wound healing processes and wound closure in the intervention group began sooner and completed more quickly respectively, but both of them did not show a statistically significant difference ($p>0.05$). The healing of Albusite treated wound was better than the control wounds grossly. The study wounds were biopsied at days 9 and 21, so this might not show different effects of the Albusite gel group in appropriate time. Therefore, further studies are recommended with more sample size and less biopsy interval.

Author keywords

Albusite gel; Sprague dawley rat; Wound healing