

EFFICACY OF MARIGOLD (*Calendula officinalis*) AND TURMERIC (*Curcuma longa*) PASTE IN WOUND HEALING: A COMPARATIVE APPROACH

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Executive Summary

Wound healing with herbal plant preparations in animal model is very scant in Bangladesh. Therefore, this experiment was conducted to evaluate the therapeutic potency of marigold flower (*Calendula officinalis*) and turmeric (*Curcuma longa*) rhizome paste in wound healing. Thirty-six aseptic surgical wounds were tooled in six non-pregnant black Bengal goats dividing them in 3 groups. Month long information and follow-up examinations along with complications such as edema, wound dehiscence, suture abscess, exudation etc. were studied. Wound healing was assessed by observing some morphological characters as well as histopathological changes of the wounded area. Results revealed that negligible elevation of suture line (1.17 ± 0.11 mm) and significant ($p < 0.01$) reduction of sutured area were observed in goats of turmeric group at day 3 and 7, respectively. Moreover, histologic appearance of wound of the similar group displayed splendid development of keratin layer and collagen fiber than the others from day 3. However, therapeutic efficacy of marigold flower paste was not up to the mark as turmeric in this experiment. Control group treated with povidone iodine, showed good results but took long time. This study could patronize veterinarians to consider the use of herbal plants especially turmeric as a great wound healer. It will also reduce toxicities created by haphazard use and applications of pharmaceutical products. The findings of this experiment will not only prevent the skin degradation but also help to maintain the good health status of animals.

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