

## Effect of Honey on Rate of Healing of Socket after Tooth Extraction in Rabbits

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**Abstract :** Background: Honey is the worlds' oldest known wound dressing. Its wound healing properties are not fully established till today. Concerns about antibiotic resistance, and a renewed interest in natural remedies have prompted the resurgence in the antimicrobial and wound healing properties of Honey. Evidence from animal studies and some trials has suggested that honey may accelerate wound healing in burns, infected wounds and open wounds. None of these reports have documented the effect of honey on the healing of socket after tooth extraction. Therefore, the present experimental study was planned to evaluate the efficacy of honey on the healing of socket after tooth extraction in rabbits. Materials and Methods: An experimental study was conducted in six New Zealand White rabbits. Extraction of first premolar tooth on both sides of the lower jaw was done under anesthesia produced by Ketamine and Xylazine followed by application of honey on one socket (test group) and normal saline (control group) in the opposite socket. The intervention was continued for two more days. On the 7th day, the biopsy was taken from the extraction site, and histopathological examination was done. Student's t-test was used for comparison between the groups and differences were considered to be statistically significant at p-value less than 0.05. Results: There was a significant difference between control group and test group in terms of fibroblast proliferation ( $p = 0.0019$ ) and bony trabeculae formation ( $p=0.0003$ ). Inflammatory cells were also observed in both groups, and it was not significant ( $p=1.0$ ). Overlying epithelium was hyperplastic in both the groups. Conclusion: The study showed that local application of honey promoted the rapid healing process particularly by increasing fibroblast proliferation and bony trabeculae.

**Keywords :** honey, extraction wound, Nepal, healing

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