

**The Effects of Aloe Vera Plant and Gel on Oral Mucosal Wound  
Healing in Rabbits: A Histological Study**

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**BACKGROUND:** *Aloe Vera* is a beneficial plant full of vitamins and minerals with wide applications in health, medicinal, and skin care. **Aims of the study:** is to see how *Aloe Vera* affects the histological structure of an adult male New Zealand rabbit's oral mucosal (buccal) lesion after it has been burned. **Materials and methods:** In the current investigation, 48 male New Zealand rabbits were employed. Each animal administered ketamine and xylazine intramuscular injection in the rabbit's thigh muscle. Within 5 minutes, adequate anesthesia had been achieved. In the operating room, animals were placed on the operating table. Electrosurgical Generator cautery was used for unipolar cauterization throughout the procedure. For burning of 0.5 cm of the rabbits' buccal oral mucosa, we employed a unipolar electrocautery pen with a (2.5) inch standard blade electrode at 95.5 °C. Following that, the rabbits were randomly split into four groups (12 rabbits for each group): Group 1 (normal oral mucosa without burning) (n= 12), Group 2 (burning oral mucosa without medicine) (n= 12), Group 3 (*Aloe Vera* plant) (n= 12), and Group 4 (*Aloe Vera* gel) (n= 12). Each group subdivided according to the medication period into (3, 7, 14 days) then 12 rabbits were sacrificed for each medication period. These rabbits' buccal tissues were removed for histological testing, and then statistics analysis was carried out. **Result:** The burn site was categorized by faint inflammatory cells infiltration, granulation tissue, angiogenesis, and re-epithelialization in *Aloe Vera* plant-treated buccal tissue, whereas the burn site was characterized by granulation tissue, angiogenesis, and re-epithelialization in *Aloe Vera* gel-treated buccal tissue, but without inflammatory cells infiltration. **Conclusion:** It is reasonable to believe that the *Aloe Vera* plant and gel might have a healing impact on a burned oral mucosal tissue. The *Aloe Vera* gel was much more successful in wound healing than the *Aloe Vera* plant.