ABSTRACT

PERBEDAAN JUMLAH SEL PMN PADA PROSES PENYEMBUHAN LUKA PENCABUTAN GIGI MARMUT *(Cavia cobaya)* YANG DIBERI GEL *Aloe vera 90%*

(PMN COUNT DIFFERENCE IN WOUND HEALING PROCESS FOLLOWING TOOTH EXTRACTION OF *Cavia cobaya* WITH *90% Aloe vera* GEL APPLICATION)

ABSTRACT

Background. Neutrophils are the first inflammatory cells to invade in wound healing process and are predominant cell marker in the wound within 24 hours after injury. Senescent neutrophils undergo apoptosis and later cleared by phagocytic cells such as macrophage. Research has been done to prove the use of Aloe vera following tooth extraction could accelerate healing process by increase the number of phagocytic cells, increase cells regeneration, anti-inflammation, anti-bacterial, anti-fungal, and as an immunomodulator. **Aim.** The aim of this study was to prove the PMN count difference in wound healing process following tooth extraction of Cavia cobaya with Aloe vera 90% gel application. **Methods.** This laboratorary experimental research was done using Post Test Only Control Group Design. Lower incisivus of twelve male Cavia cobaya as sample were extracted then divided into two groups. Group 1, 90% Aloe vera gel was applied into the socket and sutured and group 2 as a control. Half of the samples of each groups was terminated and had their mandibula taken one day after tooth extraction and the other was three days after then processed to be a histology slides, and PMN cells were counted. **Results.** There were significant differences of PMN count with 90% Aloe vera gel on day three ($p < 0.05$) compared with control group. **Conclusion.** There were difference of PMN count with 90% Aloe vera gel compared with control group.

Key words: 90% Aloe vera gel, post extraction wound healing, PMN count.