

**PENINGKATAN JUMLAH MAKROFAG PADA PROSES  
PENYEMBUHAN LUKA PASCA PENCABUTAN GIGI MARMUT (*Cavia  
cobaya*) SETELAH PEMBERIAN *FREEZE DRYING GEL LIDAH BUAYA  
(Aloe vera) 90%***

**INCREASING NUMBER OF MACROPHAGES in WOUND HEALING  
PROCESS AFTER TOOTH EXTRACTION ON *Cavia cobaya* AFTER  
GIVING OF *FREEZE DRYING GEL ALOE VERA (Aloe vera) 90 %***

**ABSTRACT**

**Background.** Tooth extraction is a common procedure in dentistry, in which the extraction procedure will result in a wound on the socket. Wound healing process may cause complication such as bleeding, swelling, dry socket and spreading infections. Bleeding is one of the effects tooth extraction. Use of herbal medicine can help minimize complication and helping in the wound healing process. The acemannan and lectin in freeze drying gel Aloe vera 90% can increase amount of macrophages cells which can help the healing process. **Purpose.** To prove an increasing of macrophages in wound healing process after tooth extraction *Cavia cobaya* after giving freeze drying gel Aloe vera 90%. **Method:** Aloe vera, take gel from aloe vera then carried freeze drying process. Result of freeze drying, Aloe vera dried was made into gel which CMC Na. *Cavia cobaya* was divided into 4 group base on one concentration and observed time. Observation days to 1 consist of the control group and treatment group without given aloe vera and observation days to 3 consist of the control group and treatment group given aloe vera. The data were analyzed statistically using One-way Anova and Tukey HSD. **Result:** One-way Anova no significant difference between groups. Tukey HSD showed no significant difference between the control groups, control groups with treatment groups and between the treatment groups. Diagramatic showed an increased number of macrophages between days 1 and 3 in the treatment group (given extracts of freeze drying gel Aloe vera 90 %). But, between groups hasn't significant difference because using only one concentration is 90%. May be of concentration 90% no optimal concentration. Other than that, Aloe vera has anti-inflammatory, it can inhibited production prostaglandin and tromboxan A<sub>2</sub>. If inhibited, activation and amount of macrophages in tissue would be disrupted. **Conclusion:** Giving of extract freeze drying gel Aloe vera 90% could increasing amount macrophages in wound healing after tooth extraction *Cavia cobaya* in observation days to 1 and 3, but in stastically between days to 1 and 3 no significant difference.

**Keyword:** Freeze drying gel Aloe vera, Wound healing, Macrophage