

PENGARUH PEMBERIAN GEL BUAH PEPAYA (*Carica papaya*) SECARA TOPIKAL TERHADAP JUMLAH FIBROBLAS PADA SOKET PASCA EKSTRAKSI GIGI MARMUT (*Cavia cobaya*)

THE EFFECT OF PEPAYA FRUIT (*Carica papaya*) GEL TOPICALLY TO THE AMOUNT OF FIBROBLAST ON SOCKET AFTER TOOTH EXTRACTION OF GUINEA PIG (*Cavia cobaya*)

ABSTRACT

Background: *Carica papaya* fruit gel has been known to have antimicrobial, antioxidative, antiinflammatory properties that can help healing process. Thus *Carica papaya* gel should, theoretically, be able to increase the wound healing of post extraction socket. **Purpose:** This research is to study the wound healing effect of *Carica papaya* gel applied topically to the tooth socket post extraction. **Methods:** This study used 42 guinea pigs which are divided into 2 groups of samples (control and treatment). Then, the research done on day 3, day 5, and day 7, in which each group consisted of 7 guinea pigs. Firstly, tooth extraction of the left incise in lower jaw was done in all groups. In the control groups, the socket of tooth extraction was given CMC Na 0,5% topically, whereas in the treatment groups, the socket of tooth extraction was given gel *Carica papaya* topically (100 mg/kg). Afterwards, on the day 3, 7 guinea pigs taken from each groups (control and treated group) were made histopatology preparations and the amount of fibroblast were measured. The same were done on day 5 and day 7 groups. The difference of fibroblasts amount were analyzed statistically using Independent T-test, one-way ANOVA and $LSD_{0.05}$. **Result:** The result of every tested group showed $Sig > 0.05$, therefore all of data had normal distribution and the analysis was continued by independent T-test and $LSD_{0.05}$ test. Examination showed there was significant difference in fibroblast amount between control group and treatment group by applied gel *Carica papaya* ($Sig < 0.05$) in day 3, day 5, and day 7. **Conclusion:** Applying *Carica papaya* gel topically to the socket post tooth extraction can increase the amount of fibroblas.

Key words: *Carica papaya*, wound healing, fibroblast, tooth extraction.