



The Effect of Giving Sap of Twigs Jarak Tintir (*Jatropha Multifida L*) Gel Topically to The Wound Healing Process After Tooth Extraction in Male Guinea Pigs (*Cavia Cobaya*)

Dewi Ovi Yanti¹, Hartanti²

¹School of Dentistry, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta

²Lecturer of Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta

BACKGROUND...

Wound healing is a process to improve damage that occurs on the tissue. Condition of the wounds on the body will be give healing reactions that consisted of the inflammatory phase, proliferation and maturation. In general process of wound healing after tooth extraction is similar to the wound healing in general. The dentist will be applying a material used to stop the bleeding, as an anti-septic and faster wound healing after the tooth extraction. Wound healing after tooth extraction can be applied gel-from plan like gel latex from branch *Jatropha Multifida L* topically. Jarak tintir (*Jatropha Multifida L*) contains substances such as alkaloids, flavonoids, saponins and tanins that can accelerate wound healing.



MATERIAL AND METHOD...

This type of research is an experimental laboratory research. Twelve male marmoth (*Cavia Cobaya*) with the body weight of marmoth are ranged from 250-350 g and aged 3 to 3.5 months were used as the study sample and was divided into 2 groups randomly (n= 6 respectively). Group 1 is the treatment group, while group 2 is the controlled group (no treatment). Animal grouping test amounted to 12 tail then divided into 2 groups: group treatment was given sap of twigs jarak tintir (*Jatropha Multifida L*) gel topically and groups control (no treatment), which each group consisted of 6 animals male guinea pigs. Each guinea pigs were placed in a cage the same and given the number and placed on environmental conditions same. Wound after extraction teeth in observation for 30 days... Analysis of the data used is the Shapiro-Wilk normality test followed by unpaired t-test (Independent t-test) with the level of significance <0.05 (Sig).



RESULT AND DISCUSSION...

The results showed that there are no differences in the speed of wound healing between the two groups ($p>0.05$). The mean of healing process is 24 days for group 1, and 24 days for group 2 (sig = 0.448 and t = -5.855). The healing (mean) in the group treatment was 24 days whereas for the group without average treatment recovered on day 28th. The influence wound healed speed post tooth extraction is a gift sap of twigs jarak tintir (*Jatropha Multifida L*) gel topically due to material sap contained such as saponins and flavonoid. Substances activators of damaged blood vessel walls of platelets, and from protein blood attached to damaged blood vessel walls will start the process of freezing blood. Immediately after an injury, blood vessels break up constrict and retraction reaction accompanied hemostasis because platelet aggregates with nets fibrin blood clot. Flavonoid has a function as a barrier bleeding and increase platelet count. Increased platelet counts associated with biological activity, and bioavalibilitas physiological effects. Platelets hold important role in the process blood coagulation and hemostasis.

CONCLUSION: It can be concluded that gel latex of branch jarak tintir (*Jatropha Multifida L*) has no influence in accelerating process of wound healing after tooth extraction.



REFERENCES

1. Alvina,D.,hana.R.,Sugiarto.P.(2009). Perbandingan pengaruh ozon, getah jarak cina (*Jatropha multifida L*), dan povidon iodine 10% terhadap waktu penyembuhan luka pada mencit betina galaur Swiss Webster. *Jurnal kedokteran Maranatha*.8, (2), 132-137.
2. Harsini & Widjiono.(2008).Penggunaan herbal di bidang kedokteran gigi. *Majalah-kedokteran gigi*, 15(1),6164.
3. Howe, G.L.(1999). Pencabutan gigi-geligi (2nd ed). Jakarta: EGC.
4. Indeks tumbuh-tumbuhan obat di Indonesia.(1986).PT.Esiai: Indonesia.
5. Artikel kesehatan (2009,maret). Proses penyembuahn luka yang di akses 6 april 2011, dari <http://perawatpskiatri.blogspot.com/2009/03/prosespenyembuhan-luka.html>