

ABSTRACT

**EFEKTIVITAS EKSTRAK BUAH BELIMBING WULUH
TERHADAP ANGIOGENESIS PENYEMBUHAN LUKA
PENCABUTAN GIGI MARMUT****EFFECTIVITY OF *Averrhoa bilimbii* EXTRACT OF
ANGIOGENESIS WOUND HEALING
MARMOT TOOTH EXTRACTION**

Background. *The prevalence of tooth extraction in dentistry is 54,3%. Tissue damage that occurs after tooth extraction can cause release growth factor of platelet, namely PDGF and VEGF. Both of growth factor, PDGF and VEGF, simultaneous triggering angiogenesis and mediates blood vessel growth. VEGF plays a role in the increased permeability of blood vessels, and PDGF plays a role in facilitating vascular maturation. This research to find alternatif materials that have increased angiogenesis and by utilizing natural ingredients that can later be used as a gel topical for increased wound healing. Averrhoa bilimbii extract contains flavonoids, saponins and tannins. Flavonoids, saponins and tannins have antioxidant and anti-inflammatory effects. Flavonoids also increase growth factor and wound healing post tooth extraction.* **Purpose.** *The aim of this study was to determine Averrhoa bilimbii extract against angiogenesis in socket of marmot post tooth extraction.* **Method.** *This research is a laboratory experimental with post test only group design, using 32 marmots, which divided into 8 groups, 4 groups was observed angiogenesis on the third day and 4 groups was observed angiogenesis on the fifth day. 1 of 4 groups as a control group was given CMC-Na and three others as an intervention groups was given Averrhoa bilimbii extract with concentration 10%, 20%, and 40%. Observations were made by calculating the lumens of blood vessels and using histopatological samplings. Finally, the data were analysed using One-Way ANOVA.* **Result.** *At the concentration 10%, 20%, and 40% of Averrhoa bilimbii extract showed that affects the increased angiogenesis in socket of marmot post tooth extraction on the third day and fifth day.* **Conclusion.** *The Averrhoa bilimbii extract can increased angiogenesis effect in socket of marmot post tooth extraction on the third day and fifth day*

Keyword : *Averrhoa bilimbii extract, Angiogenesis, Tooth extraction.*