

**PENGARUH PEMBERIAN EKSTRAK BUAH BELIMBING  
WULUH (*Averrhoa bilimbi*) TERHADAP PROLIFERASI  
FIBROBLAS PADA LUKA PASCA EKSTRAKSI  
GIGI MARMUT (*Cavia cobaya*)**

***EFFECT OF BILIMBI FRUIT EXTRACT (*Averrhoa bilimbi*) IN THE  
PROCESS OF FIBROBLAST PROLIFERATION ON WOUND HEALING  
AFTER TOOTH EXTRACTION MARMOT (*Cavia cobaya*)***

**ABSTRACT**

**Background:** Post-extraction tooth socket generally can be cured without problems even it has a large open wound. Wound healing is sequences where cellular components and biochemical responses affecting the injured tissue. The sequences are inflammation phase, proliferative phase, and remodeling phase. The use of medicaments that trigger wound healing process post-extraction has been proven clinically to reduce the likelihood of complications and expected to accelerate wound healing. Bilimbi fruit (*Averrhoa bilimbi*) is an Indonesian traditional fruit that has been scientifically proven to has many medicinal benefits. Bilimbi fruit contains flavonoid, saponin, and tannin that can accelerate the wound healing process. **Purpose:** To acknowledge the efficiency of bilimbi fruit extract towards the number of fibroblasts in post-extraction socket histologically. **Methods:** Bilimbi fruit extract are made with three different concentration, 10%, 20%, and 40%, then, mixed with CMC-Na, becoming a gel preparations. *Cavia cobaya*'s insisive tooth was extracted, and then applied the gel preparations upon the socket. On third day post-extraction, the experimental animals are decapitated. Its jaw is taken as samples to make a histological preparations. The preparations are divided into three visual fields, and then observed to count the number of fibroblasts. **Results:** The gel of bilimbi fruit extract has an efficiency to increase the number of fibroblasts in a post-extraction socket of *Cavia cobaya*. **Conclusion:** Bilimbi fruit extract is effective to accelerate the process of wound healing in *Cavia cobaya* tooth socket post-extraction by increasing fibriblast proliferation at the 40% concentration of the extract.

**Keyword:** Wound healing, *Averrhoa bilimbi*, Tooth extraction.