# PENINGKATAN JUMLAH FIBROBLAS PADA PENYEMBUHAN LUKA SAYATAN GINGIVA TIKUS *WISTAR* YANG DIBERI GEL EKSTRAK DAUN BELIMBING

# *INCREASED NUMBER OF FIBROBLASTS IN WOUND HEALING GINGIVAL INCISION WISTAR RATS GIVEN THAT LEAVES FRUIT EXTRACT GEL*

## ABSTRACT

***Background.*** *The discovery of a variety of drug compounds from plant extracts made man wished to create a new drug compound created from herbs, and one of them is a sweet star fruit (carambola) leaf contains flavonoids in it. Flavonoid works to increase the number of fibroblasts in wound healing. Research about carambola leaf extract in accelerating wound healing and the used as topical medication has not been studied previously.* ***Purpose.*** *The purpose of this research is to find the best concentration which can increase the number of fibroblasts post Wistar rat gingival incision.Twenty-four male Wistar rats, aged 2-3 months, weighed 180-200 g were randomly divided into 4 groups consisting of a control group, the treatment group 1, group 2, group 3. Each group consisted of 6 mice.* ***Methods.*** *Rats anaesthetized with Ketamine and Silazin with intramuscular injection, the rats fell asleep then after incision at the gingival labial mucosa by 5 mm with a depth into alveolar bone. Each treatment group was given a carambola leaf extract at a concentration of 5%, 10% and 20% in the form of topical gel for 6 days. On the seventh day, the rats were sacrificed then taken and used as a rat mandibular preparations were observed with a microscope.* ***Results.*** *study showed the topical application of carambola leaf extract gel after the gingival incicision significantly increased number of fibroblasts at a concentration of 10%. This study showed that the concentration of carambola leaf extract 10% is the effective concentration for increase fibroblast in increase wound healing*

*Key words : Carambola leaf extract, fibroblast, gingival wound healing.*