

ABSTRACT

Background : Lemongrass (*Cymbopogon citratus*) is one of many Indonesia traditional plants which had been explored recently. *Cymbopogon citratus* has many bioactive components such as flavonoid and citral which all function as antioxidant. Antioxidant can be use against free-radicals. In chronic injury, free-radicals which are produced excessively by inflammation process can prolong wound healing.

Purpose : the aim of this study is wants to know the advantage of *cymbopogon citratus*'s extract to accelerate healing of cuts in mice.

Method : this experiment uses post test only control group design. Twenty four mice are used and divided into four groups : control group (KK) and three others treatment group. The first treatment group (KP-1) were treated with *cymbopogon citratus* 0.3 g/kg, the second group (KP-2) were treated with *cymbopogon citratus* 1 g/kg, the third group (KP-3) with *cymbopogon citratus* 2 g/kg. pathological examination is used to count chronic inflammation cell (macrophage, plasma cell, lymphocyte) , fibroblast, and capillary blood vessel. Data is presented as a table. One way anova test and post hoc test (LSD) are used in this experiment by SPSS 13 Windows.

Result : our study indicated lemongrass has great potential in anti inflammatory. It shown at the treatment group, there was a decrease chronic inflammation cell (macrophage, plasma cell, lymphocyte) (KK X 88.67 ± 14.651 compare with KP-3 X 45.83 ± 3.060), increased fibroblast (KK X 81.67 ± 6.439 compare with KP-3 X 113.67 ± 9.667), increased capillary blood vessel (KK X 73.67 ± 5.955 compare with KP-3 X 117.83 ± 9.32). in every group, significant differences are present when tested using One Way Anova test $p=0,0$. in LSD test, there are significant differences between KK with every groups and between KP -1 with KP-3.

Conclusion : applying *Cymbopogon Citratus* on wound will affect its healing. It is found that the treatment with *cymbopogon citratus* 2g/kg had the most accelerate on the healing process.

Keywords :

Lemongrass (*Cymbopogon Citratus*), antioxidant, wound healing.