

PEMBERIAN EKSTRAK BIJI TERATAI (*Nelumbo nucifera*, Gaertn) TERHADAP KECEPATAN PENYEMBUHAN LUKA PENCABUTAN GIGI (PENELITIAN EKSPERIMENTAL LABORATORIS PADA *CAVIA COBAYA*)

EFFECT OF LOTUS SEED EXTRACT ON THE VELOCITY OF POST TOOTH EXTRACTION WOUND HEALING (EXPERIMENTAL RESEARCH LABORATORY IN *CAVIA COBAYA*)

ABSTRACT

Background. Lotus seed (*Nelumbo nucifera*, Gaertn) is one of many China traditional plants which had been explored recently. *Nelumbo nucifera* has many bioactive components such as flavonoid and quercetin 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 *Nelumbo nucifera*'s extract to accelerate wound healing of tooth extraction in guinea pig.

Method. This experiment uses post test only control group design. Twenty four guinea pigs are used and divided into four groups : control group (KK) and three others treatment group. The first treatment group (0,4 dose) were treated with *nelumbo nucifera* 0,4 g/kg, the second group (0,6 dose) were treated with *nelumbo nucifera* 0,6 g/kg, the third group (0,8 dose) with *nelumbo nucifera* 0,8 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.

Result. Our study indicated lotus seed has great potential in anti inflammatory. It shown at the treatment group, there was a decrease chronic inflammation cell (macrophage, plasma cell, lymphocyte) (control with mean 11,83 compare with 0,8 dose with mean 6,67),increased fibroblast (control with mean 9,50 compare with 0,8 dose with mean 24,17), increased capillary blood vessel (control with mean 3,33 compare with 0,8 dose with mean 4,33). In every group, significant differences are present when tested using One Way Anova test $p > 0,05$. In LSD test, there are significant differences between contol with every groups and between 0,4 dose with 0,8 dose

Conclusion. Applying *Nelumbo nucifera* on post extraction wound will affect its healing. It is found that the treatment with *Nelumbo nucifera* 0,8 g/kg had the most accelerate on the healing process.

Keywords : Lotus seed (*Nelumbo nucifera*, Gaertn), antioxidant, wound healing.