ABSTRACT

PENGARUH PEMBERIAN GEL EKSTRAK DAUN KEMANGI (Ocimum sanctum L.) TERHADAP PERCEPATAN PENYEMBUHAN LUKA PASKA PENCABUTAN GIGI Cavia cobaya

Background. In dentistry, there are often doing wound treatment post tooth extraction. The treatment is aimed to achieve good wound healing process. In the process of wound healing, macrophages and fibroblast have important roles. Asian people still depends on traditional medicine. One of them is Ocimum sanctum L., based on research has the effect of wound healing. Ocimum sanctum L. leaves contain flavonoid and tannin, act as antioxidant and also induce limfokine to increase macrophages migration. Macrophages stimulate growth factors secretion thus increase fibroblasts proliferation. Purpose. The aim of this study was to investigate the effect of Ocimum sanctum L. extract gel in accelerating wound healing by increasing numbers of macrophages and fibroblasts and looking for optimal concentration. Method. This study was used males Cavia cobaya and divided into five groups, each contains five Cavia cobayas. All group had tooth extraction and gel application. Control group used CMC-Na 3% and the others used Ocimum sanctum L. extract gel with concentrations 10%,20%,45%, and 90%. Execution was held on fourth day by taking the mandible to make hystopathological preparat and then counted for macrophage and fibroblast. The data were analyzed statistically using One-way Anova and LSD. Result. One-way Anova showed significant difference between groups. LSD showed significant difference between control group and 10%,20%,45%,90% extract gel treated group, but no significant difference between 45% and 90%. Conclusions. Application of Ocimum sanctum L. extract gel can accelerate wound healing by increasing the amount of macrophage and fibroblast after tooth extraction of Cavia cobaya and the optimal concentration is 45%.