ABSTRACT

Background. One of the common procedures in dentistry was tooth extraction. The procedures cause wound in the tooth socket. Wound healing process which is divided into four phases was the important part. As technology and medicine evolve, herbal medicine that contains antioxidant can play an important role to help the wound healing process. Beta-carotene and polyphenol, specifically anthocyanin, were anti-oxidative compound contained on purple sweet potato extracts to make the wound healed faster by increasing fibroblast proliferation.

Purpose. The aim of this study was to evaluate the effect of purple sweet potato extracts on fibroblast proliferation in wound healing process after tooth extraction.

Method. Experimental Laboratories Study was used during this study. Purple sweet potato extracts mixed with CMC-Na to make gel extracts. 32 Cavia cobaya were divided into 4 groups based on the extracts concentrations: control group, 3%, 6% and 9%. The left lower incisive tooth of Cavia cobaya extracted and the tooth socket filled with extracts. Mandibles of Cavia cobaya was executed on the 3rd and 5th day after purple sweet potato extracts application. To count the amount of the fibroblast proliferation, histo-pathological evaluation was performed after. Result. The group with 9% concentration showed the highest amount of fibroblast proliferation on wound healing process compared with other groups. The highest one is 9% concentration on the 5th day. Conclusion. Purple sweet potato extracts affect wound healing on tooth extraction by increasing fibroblast proliferation.

Keywords: Purple Sweet Potato extracts, Fibroblast, Tooth extraction