ABSTRACT

APPLICATION OF SPIRULINA (Blue Green Algae) GEL TO IMPROVE Cavia Cobaya FIBROBLAST CELL NUMBER OVER WOUND HEALING PROCESS AFTER TOOTH EXTRACTION

Background: Wound healing treatment after tooth extraction should be an important consideration due to mouth discomfort and pain. Spirulina (blue green algae) consists of C-phycocyanin, β-Carotenoids, vitamin E, zinc, and some other trace elements and natural phytochemical which are believed to act as antioxidant and take part in wound healing process. Purpose: To differ the effect of Spirulina gel towards Cavia cobaya fibroblast cell number over wound healing process after tooth extraction. Methods: Have their left incisive tooth extracted, research animals are then divided into 4 groups based on concentrations: 0%, 3%, 6%, and 12%. All samples are executed on the 5th day of application to perform histopathological evaluation as well as to count fibroblast cell among groups. Result: The research has proven the relation between the increased growth of fibroblast cell and Spirulina gel application. The higher the doses, the more cell growth. Hence, there has been significant different (p<0.05) among groups. Conclusion: Difference has been proven among control (concentration 0%), doses 3%, 6%, and 12% towards Cavia cobaya fibroblast cell number over wound healing process after tooth extraction.

Keywords: Gel, spirulina, fibroblast, wound healing