FIBROBLAST COUNTS AFTER BOVINE COLOSTRUM AND LONGAN SEED (Euphoria longan) EXTRACT GEL APPLICATION ON RAT’S LIPS INCISION

ABSTRACT

Background: Many injuries occur in the oral cavity such as mouth sores, inflammation of the mouth, lips or mouth pain, gum infection etc. Therefore, prevention of infection and improvement of wound healing in the oral cavity needs appropriate care include by using a natural antiseptic. One of the high benefits natural antiseptic is colostrum and longan seed (Euphoria longan), because the colostrum contains antioxidants that are able to overcome the inflammatory reaction that occurs as the body’s response against an infection. While the kelengkeng seeds contain phenolic compounds such as corilagin, gallic acid, and the acid elagat as antiplasmodial, antimicrobial, antioxidant, anti-inflammatory that can accelerate the process of wound healing and cancer-preventing compounds. Objective: To prove the change in number of fibroblasts after application of bovine colostrum and longan seed extract gel after the occurs of injury in the oral cavity. Methods: This study is an experimental laboratory with post test only control group design using male Wistar rats (Rattus norvegicus) were slashed on the labial mucosa of the oral cavity to see the changes in number of fibroblasts in the wound after application of bovine colostrum extract gel 40% and longan seed extract gel 3.2%. Results: The application of bovine colostrum extract gel 40% had a mean number of fibroblasts 283.33 higher than the application longan seed extract gel 3.2% with the average number of fibroblasts is 205.75 Conclusion: Colostrum contains a variety of growth factors and nutrient factors that required to stimulate the proliferation of fibroblasts so there is an increase number of fibroblasts.

Keywords: Wound, fibroblasts, bovine colostrum extract gel, longan seed extract gel.