Abstract

Background. Dental extraction is an act that is often done in dentistry whether in adults or children which can cause injury in the tooth socket and uncomfortable complications in children. Chemical drugs are commonly used to treat lesions of the oral cavity, but it has many shortcomings. Therefore alternative drug that can accelerate wound healing process and have minimal side effects is needed. Colostrum and longan seed has an antibacterial effect, anti-inflammatory and antioxidant that can be used as an alternative medicine for healing wounds. Colostrum is also having plentiful growth factors, immune factors, and nutrient factors. Purpose. To compare the number of lymphocytes after bovine colostrum and longan seed (Euphoria longan) extract gel application on rat’s lips incision.

Methods. Laboratory experimental with post-test control group design, a total sample of 30 male Wistar rats (Rattus norvegicus). Incision in the rat’s mandibular labial mucosa were divided into 3 groups: control group (sterile distilled water), Group 1 (40% bovine colostrum extract gel), group 2 (3,2% longan seed extract gel). On 4th day, the removal of tissue is performed and continued by making preparations. Lymphocyte count is calculated by reading the histopathological preparations in the healing center area of the incision wound using a light microscope with 1000x magnification. Data were statistically tested using One-Way ANOVA and Tukey HSD with 95% confidence level. Result. There are differences in the number of lymphocytes in each treatment group; control (9), treatment 1 (16,8), treatment 2 (22,12). Conclusion. Higher lymphocyte counts found in the group of 3,2% longan seed extract gel application compared with 40% bovine colostrum extract gel application and the control group.

Keywords: Bovine colostrum, longan seed, wound healing, lymphocyte