ABSTRACT

Effect of *Stichopus hermanii* Extract to Increase Re-epithelization in Healing Process of Traumatic Ulcer in Wistar Rat’s Oral Mucous

**Background:** Oral tissue damage triggers activity which is called as wound healing process. The process needs GAGs and some other components to bind fibroblasts to support the healing process. **Purpose:** This research study is aimed to determine the effects of nature medicine of sea cucumber (*Stichopus hermanii*) extract which contains GAGs and some benefit cells in oral epithelium of Wistar rat’s traumatic ulcer. **Methods:** A burn wound was made on the oral mucous of Wistar Rat by using burnisher that had been heated for 1 minute. The groups divided into 4, group 4 as a control group, group one, two and three as treatment groups. The control group not treated with *Stichopus hermanii*’s extract. Then on the seventh day the animal were killed and histologic preparation on the traumatic ulceration area were made and stained using Hematoxylin eosin method. The epithelial thickness was measured using digital marking with Cell D program and analyzed using Anova and LSD tests. **Results:** The treatment groups showed accelerated re-epithelization proven by the higher result of the epithelium thickness than control group. **Conclusion:** Sea cucumber (*Stichopus hermanii*) extract can accelerates re-epithelization of Wistar rat’s oral mucous burn wound at 80%.

**Keywords:** Wound healing, traumatic ulcer, *Stichopus hermanii*’s extract, re-epithelization, glicoaminoglycans.