ABSTRACT

THE PRESENT OF GOLDEN SEA CUCUMBER EXTRACT (Stichopus hermanii) TOWARDS INCREASING NUMBER OF LYMPHOCYTES IN HEALING PROCESS OF ULCUS TRAUMATIC ULCER in WISTAR RAT’S ORAL MUCOUS

PEMBERIAN EKSTRAK AIR TERIPANG EMAS (Stichopus hermanii) TERHADAP PENINGKATAN JUMLAH LIMFOSIT PADA PENYEMBUHAN ULKUS TRAUMATIKUS MUKOSA RONGGA MULUT TIKUS WISTAR

Background: Indonesia is a country with the world’s biggest potential and producer of sea cucumbers. Golden sea cucumber contains glicosaminaglycans such as heparin sulphate and chondroitin sulphate, that could have a positive implication on wound healing process. This acceleration of wound healing could be observed with the increase in the number of lymphocytes in healing process of ulcus traumaticus.

Methods: Golden sea cucumber extract was made with freeze-dried method, then prepared gel based using PEG 400 and PEG 4000 solvent. The experimental animals, in which have been made mucosal ulcus, were divided into a control group and a treatment group to be applied into golden sea cucumber extract with concentration of 20%, 40% and 80%. All sample were euthanized on day 4 and then made a preparation histopathology to count the number of lymphocytes.

Results: One way annova test showed a significant difference between the control and treatment group. Tukey HSD showed a significant difference between control group and 40% concentration golden sea cucumber application.

Conclusion: The addition of golden sea cucumber (Stichopus hermanii) extract is proven in increasing the number of lymphocytes with an optimal concentration of 40% at traumatic ulcer in Wistar rat’s oral mucous.

Keywords: Wound healing, traumatic ulcer, Stichopus hermanii’s extract, glicosaminoglycans, lymphocytes