ABSTRACT

THE INCREASE AMOUNT OF ENDHOTELIAL CELL IN HEALING PROCESS OF ULCUS TRAUMATIC ULCER in WISTAR RAT’S ORAL MUCOUS WITH APPLICATION OF GOLDEN SEA CUCUMBER EXTRACT (Stichopus hermanii)

PENINGKATAN JUMLAH SEL ENDOTEL PADA PENYEMBUHAN ULKUS TRAUMATIKUS MUKOSA RONGGA MULUT TIKUS WISTAR DENGAN PEMBERIAN EKSTRAK AIR TERIPANG EMAS (Stic hopus hermanii)

Background: Oral Traumatic ulcer is a lesion formed by oral mucous tissue damage that is caused by trauma. In the process of wound healing, endothelial cell has a role especially in the inflammatory phases. Stichopus hermanii’s containing glycosaminoglicans (GAGs) and GAGs will accelerate wound healing and tissue repair. Methods: Golden sea cucumber extract was made with freeze-dried method, PEG 400 based gel and PEG 4000 solvent were prepared. The experimental animals, in which have been made mucosal ulcus, were divided into 3 groups, control group, treatment group I and treatment group II are applied with golden sea cucumber extract with the concentration of 40% and 80%. All sample were euthanized on day 4th and then made a histopathology preparation to count the number of endhotelial cell. 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 80% concentration golden sea cucumber application. Conclusion: in the healing process of ulcus traumatic ulcer in oral mucous with application of golden sea cucumber extract (Stichopus hermanii) on concentration 80% on day-4th the most effective to increase amount of Endhotelial cell.

Keywords: Traumatic ulcer, Wound healing, Stichopus hermanii’s extract, endhotelial