

## 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 ulcer, 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 4<sup>th</sup> and then made a histopathology preparation to count the number of endothelial 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 ulcer traumatic ulcer in oral mucous with application of golden sea cucumber extract (*Stichopus hermanii*) on concentration 80% on day-4<sup>th</sup> the most effective to increase amount of Endhotelial cell.

**Keywords:** Traumatic ulcer, Wound healing, *Stichopus hermanii*'s extract, endothelial