

PENINGKATAN JUMLAH SEL MAST pada ULKUS TRAUMATIKUS setelah APLIKASI EKSTRAK TERIPANG EMAS (*Stichopus hermanii*). (PENELITIAN pada TIKUS WISTAR (*Rattus norvegicus*))

THE INCREASE AMOUNT OF MAST CELL ON TRAUMATIC ULCER AFTER APPLICATION OF GOLD SEA CUCUMBER (*Stichopus hermanii*). (RESEARCH ON WISTAR RATS (*Rattus norvegicus*))

ABSTRACT

Background. Oral Traumatic ulcer is a lesion formed by oral mucous tissue damage that caused by trauma. In the process of wound healing, mast cell play a role especially in the inflammatory phases. The gold sea cucumber extract (*Stichopus hermanii*) containing polyunsaturated fatty acid (PUFA) and glycosaminoglicans (GAGs), synergy between PUFA and GAGs will accelerate wound healing and tissue repair. **Objective.** The aim of this study is to determine the effect gold sea cucumber extract (*Stichopus hermanii*) toward total mast cell in wistar rats. **Method.** 40 *Rattus norvegicus* male, weighing 200-300g and aged 8 weeks, were divided into two categories; day-4 and day-7 categories, also 4 control group; negative control group, 20%, 40%, 80% *Stichopus hermanii* extract concentration. With heated burnisher no.4, the ulcer were induced in lower lip mucous. Ulcer were formed on day-2 and received golden sea cucumber extract an application of gel. Then, five rats each group euthanized on day-4 and day-7. The ulcer area were removed and fixed for histometric to determined numbered of mast cell by using haematoxylin-eosin staining. All slides were examined by pathologist under microscope from 200x to 1000x. All data would be analyzed by using ANNOVA **Result.** In total mast cell, it showed significant increase ($p < 0,05$) between 80 % concentrations to negative control group, 20%, 40% concentrations on day-4, while on day-7 there were not significant increase between each group. **Conclusion.** It can be concluded that gold sea cucumber extract at concentration 80 % on day-4 effective to increase the amount of mast cell.

Key words : Traumatic ulcer, gold sea cucumber extract, mast cell, wound healing