PEMBERIAN EKSTRAK TERIPANG EMAS (Stichopus hermanii) TERHADAP JUMLAH MAKROFAG PADA PROSES PENYEMBUHAN ULKUS TRAUMATIKUS Rattus norvegicus STRAIN WISTAR

THE GIVING OF GOLD SEA CUCUMBER EXTRACT (Stichopus hermanii) TO THE NUMBER OF MACROPHAGES FOR TRAUMATIC ULCER HEALING PROCESS Rattus norvegicus STRAINS WISTAR

ABSTRACT

Background. Traumatic ulcer is a lesion formed by local tissue damage that caused by trauma epithelium. In the process of wound healing, macrophages play a role especially in the inflammatory and proliferative phases. The golden sea cucumber (Stichopus hermanii) has been useful for food and medicine. The golden sea cucumber contains a lot of protein collagen, Glycosaminoglicans (GAGs), glycine, glutamic acid, arginine and amino acids. GAGs play a role in the process of wound healing. Purpose. Proving that gold sea cucumber extract (Stichopus hermanii) can be increase the number of macrophages in the healing process of traumatic ulcer rats wistar. Method. Rattus norvegicus strains wistar (200-300 grams, 8 weeks). The lower lip mucosa rats wistar touched by burnisher number 4 and heated for one minute and then touched for one second. Ulcers are formed on day 2, and on day 3 the treatment group was given a gold sea cucumber extract 20%, 40% and 80% concentrations. The number of macrophages calculated by histometric technique from preparation that painted by hematoxilin-eosin staining and calculated on microscope at 200 times to 1000 time. All data will be analyzed using ANNOVA. Result. The research showed that there were different result computed using annova. Annova shows the significant different (p<0,05) in 40% and 80% concentrations to the control group, while the 20% concentration to the control group was not different. Conclusions. The giving of gold sea cucumber extract can be increase the number of macrophages for traumatic ulcer healing process Rattus norvegicus strains wistar in 40% and 80% concentrations group.

Key words: Stichopus hermanii, macrophage, traumatic ulcer.