

## ABSTRACT

*Traumatic ulcers is an ulcerative lesions caused by trauma. The aims of ulcer treatments are to reduce inflammation, pain and speed up the healing. Ulcer healing can be helped by alternative medicine, mackerel contain fish oils that consist of fatty acids omega 3, omega 6, minerals and vitamins that can be nutrient support when wound healing process happened and stimulate new cell division. The purpose of this study was to determine the effect of omega 3 concentration in mackerel fish oil on changes of diameter of the wound in wistar rats.*

*Experimental research with post-test only control group design using 24 rats which divided into 6 groups: 5% omega 3 (Group 1), 10% omega 3 (Group 2), 20% omega 3 (Group 3), 30% omega 3 (Group 4), 50% omega 3 (Group 5), negative control (Group 6). The diameter of the wound were analyzed using One-way ANOVA and post-hoc LSD.*

*The result showed that the diameter of the wound in Group 1 were  $0925 \pm 0189$ , Group 2 were  $1525 \pm 0095$ , Group 3 were  $1,900 \pm 0081$ , Group 4 were  $2,100 \pm 0081$ , Group 5 were  $2400 \pm 0081$ , Group 6 were  $2625 \pm 0095$ . One-way ANOVA showed the results of  $p < 0.05$ , which means that there were the effect of omega 3 concentration in mackerel fish oil on changes of diameter of the wound. Post-hoc LSD test showed that there were significant differences in wound diameter between groups.*

*It can be concluded that there were the effect of various concentrations of omega 3 in mackerel fish oil on changes of diameter of the wound in wistar rats.*

*Keywords: Mackerel Fish Oil, Omega 3, Wound Healing Process, Wound Diameter*