

ABSTRACT

Ulcers are lesion of oral soft tissues. In wound healing adequate nutrition become one of the success factors. Various nutrients needed include arginine and glutamate. Watermelon seeds is one of the sources of glutamate and arginine in the diet. This study was conducted to determine the effect of a watermelon seed extract gel to the number of fibroblasts in traumatic ulcers healing.

This was quasiexperimental research. The sample used was 24 male Wistarrats which were divided into 4 groups. Data analysis in this study is using Shapiro Wilk test and Levene test for normality and homogeneity test. The data which distributed normal and homogeneous followed by parametric independ T-test test and Mann-Whitney for abnormal data.

Based on Independent t-tests which were performed between 3rd day test groups, obtained the significance value 0.00 ($p < 0.05$) concluded there is a significant difference. Results of Mann Whitney test which were performed between 7th day test groups, obtained the significance value 0.90 ($p < 0.05$) concluded there is no significant difference. Comparisons between the 3rd day and 7th day treatment groups obtained significance value of 0.008 ($p < 0.0$) and it can be concluded that there is a significant difference between groups.

*Based on the results of this study concluded that the administration of a watermelon seed extract gel (*Citrullus lanatus*) has effect on the increase of the number of fibroblasts in traumatic ulcers healing.*

Keywords : *Watermelon seed extract, Gel, Traumatic ulcer, Fibroblast*