

## **ABSTRACT**

### **THE COMPARISON BETWEEN TOPICAL HONEY AND CLINDAMYCIN FOR BURN WOUND TREATMENT IN RAT (*Rattus norvegicus*)**

**By**

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Skin is an organ that has weight around 16% of total human body weight. Induced skin using high-temperature objects will make the protein constituent of skin at risk for denaturation and causing reduction of defense against germs. Honey is a sweet fluid produced by bees supposedly has an antibiotic effect.

The aim of this study were to compare the rate of burn wound healing with honey and clindamycin administration. This study used a randomized controlled design.

Subjects used 9 female sprague dawley strain of *Rattus Norvegicus*. Rats were divided randomly into 3 groups as follows: K1 (control), K2 (honey 100%), K3 (clindamycin gel 1%  $\times$  10gr) 14 days after treatment the burn wound observed.

The results of histopathology research showed that the average ratio of healing skin in the groups 1, 2 and 3 were  $2.90 \pm 1.21$ ,  $4.26 \pm 0.63$  and  $3.90 \pm 0.92$  with p value = 0.000 in the Kruskal-Wallis test. for Mann-Whitney test p values that each group obtained are p = 0.000 for K1 and K2 and then p = 0.001 between K1 and K3. Whereas the test result between groups K2 and K3 are p = 0.0222. The average results of clinical trials in each groups are  $50.7 \pm 15.28$  for K1,  $94.48 \pm 6.07$  for K2 and  $92.14 \pm 6.85$  for K3.

Based on this study can be concluded that there is no significant healing rates difference in second degree burn wound for clinical and histopathologic trial between topical honey treatment, compared with clindamycin in the rats.

**Keywords :** burn wound, clindamycin, honey.