

## ABSTRACT

### THE COMPARISON OF LEVEL WOUND HEALING IN SECOND DEGREE BURN INJURY BETWEEN GIVING TOPICAL NECTAR COFFEE HONEY AND HYDROGEL IN MALE SPRAGUE DAWLEY ALBINO RATS (*Rattus norvegicus*)

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Burn is a kind of extremely serious health problem that is often faced by doctor. Various studies have shown that topical honey is effective in healing burns. However hydrogel as a standard cure for burn gives a great curative effect. The aim of this study is to find out the level of second degree in burn healing between giving topical nectar coffee and hydrogel in male Sprague Dawley albino rats (*Rattus norvegicus*).

This experimental study uses *post test only controlled group design* for 10 albino rats given 3 treatments each for 14 days. Those treatments consist of control group, nectar coffee honey treatment group, and hydrogel treatment group. Rats measured a clinical wound and skin samples were taken for histopathological examination after 14 days of treatment.

The result of the histopathological observations are no significant values with  $p > 0,05$  (0,823) between honey and hydrogel. In the clinical features obtained significant values with  $p < 0.05$  (0.001) between honey and hydrogel. Hydrogel reduced the diameter burns significantly on 14 days as compared to topical honey.

The conclusion are (1) there is no significant difference between honey treatment group and hydrogel in the histopathological observations of rats skin, (2) level wound healing in second degree burn injury with honey treatment was lower than hydrogel treatment in the clinical features of rats skin.

**Keywords** : hydrogel, nectar coffee honey, second degree's burn, skin histopathology