

**REDUCING THE NUMBER OF PMN CELLS IN SECOND DEGREE  
BURN WOUND OF MALE RATS (*Rattus novergicus*)  
USING HUMAN AMNIOTIC MEMBRANE AND  
PROPOLIS EXTRACT**

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**ABSTRACT**

The purpose of this study was aimed investigate and compare the effects of human amniotic membrane and propolis extract on the total number of PMN cells in second degree burn wound of male rats (*Rattus novergicus*). Second degree burn wound was done by heating the stainless steel in boiled water 15 minutes and then pressed directly to the skin approximally 10 second. Twenty four male rats (*Rattus novergicus*) were randomly divided into four groups i.e C1 (treated use silver sulphadiazine), C2 ( treated use vaseline flavum), T1 (treated use human amniotic membrane), and T2 (treated use propolis cream). All of treatment was done for three days (72 hours). Histopathological exam was done and data analysis used ANNOVA followed with Duncan test. The analysis showed that C1 has mean and standard deviation  $40 \pm 36,57$ , C2  $58,63 \pm 39,27$ , T1  $35,87 \pm 27,01$ , and T2  $12,87 \pm 9,43$ .The results showed there was significant difference between two group of treatment ( $p < 0,05$ ), but insignificance different between C1 with T1 . The decreased of total number of PMN cells can improved the wound healing to the next phase i.e proliferative phase and maturation phase. The conclusion of these study was thirty percent of propolis extract cream and human amniotic membrane can reduce the number of PMN cells in second degree burn wound of male rat (*Rattus novergicus*), the best result in this study to reduce the number of PMN cells was propolis cream.

**Keywords :** *Rattus novergicus*, second degree burn wound, Human Amniotic Membrane, Propolis extract