

**A STUDY TO DETERMINE EFFECIVENESS OF
BLACK TEA EXTRACT (*camellia sinensis*) IN HEALING OF
TOPICAL BURN WOUND IN MICE**

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ABSTRACT

For centuries botanicals have been used for the treatment of various human diseases throughout the various cultures. In addition botanicals have also played a role in disease prevention.

Camellia sinensis; common name tea has played a significant role in disease management. It is reported to accelerate healing of superficial wounds. This is by inhibiting bleeding from cuts and wounds, probably due to the involvement of tannins and through its antimicrobial activity.

This study was aimed at determining and evaluating the healing effectiveness of *camellia sinensis* extract specifically black tea, on induced superficial degree burn wounds in mice models. The experiment was conducted at Mount Kenya University, department of pharmacology. It took a period of approximately thirty five days. Six healthy male albino mice were acquired and randomly separated into two groups of A, B and C. superficial burn wound was inflicted at the top of the cranial thigh muscle on each mouse. The mice in group A were topically treated with black tea leaves (*camellia sinensis*) extract respectively while the mice in group B were treated with silver sulphadiazine cream as a control. Group C mice did not have any treatment method. The treatment will begin on the day of wound acquisition until the end of treatment period of 28 days. Photographs of the wound were taken and the size reductions of the wound were determined after a period of seven days (1 week) to ascertain wound closing or contraction. From the obtained results it took 28 days for complete wound healing following treatment with black tea extract while treatment with silver sulphadiazene cream took 21 days while the untreated wound took the longest time to heal, it took 35 days. From this outcome, it was concluded that black tea can treat superficial burn wound but if compared with silver sulphadiazene cream it is less effective. Due to its capability of treating superficial burn wound black tea leaf extract was recommended for use as home remedy in management of minor burn wounds. However further research can be done on other forms of tea.