

Sea Cucumber (*Stichopus chloronotus*) to Expedite Healing of Minor Wounds

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Abstract : *Stichopus chloronotus* (Black Knobby or green fish) is a sea cucumber species commonly found along Malaysia's coastline. In Malaysia, it is believed that sea cucumber can expedite healing of wounds, provide extra energy and used as an ointment to relieve pain. The aim of this study is to determine the best concentration of *Stichopus chloronotus* extract to promote wound healing. 12 male Sprague-Dawley rats with wounds created using 6mm disposable punch biopsy were divided into 6 treatment groups. The normal control group (untreated), positive control group (flavin treated only), negative control group (emulsifying ointment only), and group 0.1, group 0.5, group 1 were each treated with 0.1%, 0.5% and 1% of *Stichopus chloronotus* water extract mixed in emulsifying ointment, respectively. Treatments were administered topically for 10 days. Changes in wound area were measured using caliper and photographs were taken on day 2, 4, 6, 8, and 10 after index wound. Results showed that wound reduction of group 0.5 on day 4, 6, and 8 was significantly higher compared to normal control group and positive control group. Group 0.5 also had higher wound reduction from day 6 until day 10 compared to all other groups. In conclusion, Sea Cucumber (*Stichopus chloronotus*) extract demonstrated the best minor wound healing properties at concentration 0.5%. The potential of *Stichopus chloronotus* extract ointment for wound healing shall be investigated further.

Keywords : minor wound healing, expedite wound healing, sea cucumber, *Stichopus chloronotus*

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