Beneficial Effects of Honey in Combination with Plant Extracts on Cutaneous Wound Healing in Rats: an Animal Model

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Abstract: The present work was done to investigate the possible effects of honey alone or in combination with each of Nicotiana tabacum L. leaves or Punica granatum L. fruit shells on the rate of wound healing process and on the rate of wound infection in rats. Three groups of adult male Sprague Dawley rats each group consist of six animals. All animals were experimentally wounded in the posterior neck area. Pure unboiled honey was applied topically to Group 1, whereas honey in combination with each N. tabacum L. or P. granatum L. were used for dressing of group 2 and group 3, respectively. Wounds treated with honey combination with each N. tabacum L. or P. granatum L. healed significantly (P<0.05) earlier than that treated with honey alone. All wounds showed clean and remain sterile until complete healing. These results strongly document the beneficial effects of honey in combination with each of N. tabacum L. or P. granatum L. for the acceleration of wound healing process, minimal scar formation and the rates of wounds sterility.