PROPOLIS AND BEE VENOM IN DIABETIC WOUNDS; A POTENTIAL APPROACH THAT WARRANTS CLINICAL INVESTIGATION

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Abstract:

Background: Wound healing in diabetes mellitus is a complex multi-stage process that requires the proper function of multiple systems. The mechanisms of impaired wound healing of diabetic wounds are still poorly understood. Therefore, various interventions are being used for wound management without great success. Bee products have various properties that make them an important addition to the diabetic wound management. Methods: This review summarized previous and recently published papers of the effects of two bee products, propolis and bee venom, on the wound healing. The main results were obtained from preclinical experimentation. Results: Diabetes mellitus compromises immune system, increases infections, impairs wound healing, and affects cells and factors involved in the wound healing. There is an increasing interest in natural products in modern medicine as part of disease management. Bee products are natural substances that others and we have explored some of their biological activities and applications in the treatment of various diseases. Some of these products are bee venom and propolis. These products have analgesic, antioxidant, antimicrobial, and anti-inflammatory properties. In addition, both propolis and bee venom contain considerable amounts of antioxidants that have a great role in accelerating wound healing. Conclusion: There is sound rationality and scientific data for using propolis and bee venom in diabetic wound healing. We believe that topical application of propolis in addition to bee venom might have a place in repairing damaged tissues and accelerating the healing of diabetic wounds.

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