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Effects of Hypericum perforatum on an Experimentally Induced Diabetic Wound in a Rat Model.

Farsak M, Özdağlı G, Özmüş D, Çömelekoğlu Ü, Yalın S, Bozdoğan Arpacı B, Gen B, Kanık A, Ümit Talas D.

Abstract**OBJECTIVE:** The aim of this study was to investigate the probable effects of Hypericum perforatum (HP) on wound healing in diabetic rats.**MATERIALS AND METHODS:** Thirty-five male Wistar rats were divided evenly into 5 groups. Diabetes formation was induced by intraperitoneal streptozotocin (60 mg/kg) administration for groups 1 (HP extract in olive oil), 2 (HP extract in ethanol), 3 (povidone-iodine application), and 4 (diabetic rats without any applied medication); group 5 was the control. Dorsal dermoepidermal incision was performed on each rat after 48 hours. The aforementioned solutions were applied only to groups 1, 2, and 3; groups 4 and 5 did not receive solution applications. At the end of the 7-day period, the cutaneous tissue was resected from the center of the incised and sutured region and divided into 3 pieces for biomechanical, biochemical, and histopathological assessments.**RESULTS:** Ultimate stress and toughness significantly decreased in groups 3, 4, and 5 compared to group 1. There was a significant difference between groups 2 and 3 for the same parameters ($P < .05$). Compared with group 4, tissue malondialdehyde levels were found to be lower in the HP groups ($P < .05$). Histopathological evaluation revealed the fibroblast count was reduced considerably in the HP-applied rats compared with other groups ($P < .05$).**CONCLUSION:** Application of HP may be recommended as effective on wound healing in diabetic rats, but further investigation is needed to adapt the medicine for clinical use.**Save items**

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