

عنوان مقاله:

Evaluation of the Effect of Topical Ointment of ۱۰% Hydro-Alcoholic Extract of Pistachio Peel on Wound Healing in Rat:
A Histological Study

محل انتشار:

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نویسندگان:

علیرضا یوسفی - *Department of Clinical Sciences, Veterinary Faculty, Kazerun Branch, Islamic Azad University, Kazerun, Iran*

نگین جعفری - *Department of Clinical Sciences, Veterinary Faculty, Kazerun Branch, Islamic Azad University, Kazerun, Iran*

سارا ورزندیان - *Department of Clinical Sciences, Veterinary Faculty, Kazerun Branch, Islamic Azad University, Kazerun, Iran*

الهام فقیهی شیرازی - *Department of physiology, Shiraz University of Medical Sciences, Shiraz, Iran*

خلاصه مقاله:

Background and aim: The loss of the integrity of the skin can cause damage and diseases for a person, which leads to physical disabilities and even death; therefore, one of the most important issues that medical science has faced so far is the issue of treating wounds. This study was conducted to compare the histopathological evaluation of skin wound healing in male Wistar rats with a topical ointment of ۱۰% hydro-alcoholic extract of pistachio peel. Material and Methods: Twenty male rats were randomly allocated to two experimental groups (n=۱۰). A skin wound with a diameter of ۲ cm was created in a circular shape on the back of all animals. Group ۱ was considered as control. Group ۲ received Hydro-alcoholic ointment prepared from the pure extract of pistachio peel. ۲۴ hours after wound formation, treatment with ۱۰% ointment of purified pistachio peel extract began and continued until ۲۱ days and the healing process was evaluated on days ۴, ۷, ۱۴, and ۲۱. Animals were anesthetized, and the skin of specimens was taken. In addition, the amount of wound contraction was obtained using the calculated surface of the wound and was subjected to statistical analysis using SPSS and T-test. Results: According to the result, the hydro-alcoholic extract of pistachio peel ointment is effective and accelerates the healing of the wound. We found that the average wound size and the number of inflammatory cells were decreased in treatment groups but the number of fibrocytes, fibroblast cells, formation, and order of collagen fibers had increased in the treatment groups. Conclusion: This study suggests that topical treatment with hydro-alcoholic extract of pistachio peel can be used as clinical therapy and can enhance tissue healing.

کلمات کلیدی:

Pistachio peel extract, Wound healing, Histological study, Inflammatory cells, Hematoxylin-Eosin staining
عصاره پوست پسته، ترمیم زخم، مطالعات بافت شناسی، سلول های التهابی، رنگ آمیزی هماتوکسیلین-اُوزین

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