

Original Paper

Biomechanical evaluation of root extracts of *Onosma dichroanthum* Boiss. on skin wound healing in rat

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Abstract

Background and Objective: *Onosma dichroanthum* Boiss. is one of the most important mountainous medicinal plants in Iran. This study was done to determine the biomechanical evaluation of root extract ointment of *Onosma dichroanthum* Boiss. on wound healing in rats.

Materials and Methods: In this experimental study, 18 male adult Wistar rats were randomly allocated into control (I), vehicle (II) and treated group with ointment containing of extract 1% of root of *Onosma dichroanthum* Boiss., (III). 20 mm vertical skin incision wound were made on rats back side. The assessment of the wound healing was carried out at day 14. At the end of study, rats were sacrificed, skin sample were extracted and evaluated by biomechanical method (maximum force, elastic stiffness, energy absorption).

Results: There was no significant difference in biomechanical parameters among the treated, vehicle and control groups.

Conclusion: Topical application of *Onosma dichroanthum* Boiss. root have no effect on healing of skin wound in animal model.

Keywords: *Onosma dichroanthum* Boiss., Wound healing, Biomechanical method, Rat

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