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The effect of flaxseed extract on skin elasticity of the healing wound in rabbits (Article)

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Abstract

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Introduction: Management of disturbed wounds, large skin defects and the areas where skin tension precludes wound closure is of high clinical importance. Healing in wounds occurs through epithelization and contraction processes (second-intentions healing) that may result in certain undesirable complications including keloid and formation of a fragile epithelial layer. Materials and methods: 27 white New Zealand rabbit included in this study divided into 3 groups; one group of 9 rabbits received Flaxseed gel topically for three time intervals (1, 7, and 14 days); a second group received Fucidin cream as positive control, while a third group has not received any treatment as negative control. Skin elasticity measurements were performed using the DermaLab system. Results: Throughout the study, skin elasticity was significantly greater in Flaxseed group than in others. Flaxseed decrease elasticity value from (3.46 ± 2.05). Hence, Young's modulus of skin elasticity in flaxseed group was (2.46 ± 1.02) after 14 days (p = 0.003), while no significant differences were evident in both Fucidin group (1.16 ± 0.77) and non-treated group (1.86 ± 1.40) (p = 0.019), accordingly flaxseed extract more reproducible than other groups demonstrating comparable efficacy in skin elasticity and distensibility. Conclusions: This study showed the therapeutic effect of flaxseed on biologic tissue. Elasticity evaluation demonstrated increased density and firmness in the network of collagen fibers in the dermis and subcutis during wound healing process promise in generating therapeutic gel to be used in wound healing process. © 2019 Default.

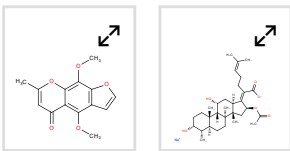
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Substances



Author keywords

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