Research

ROLE OF TOPICAL EXTRACT ALOE VERA GEL IN DEEP BURN WOUND HEALING IN RAT

(Experimental Study)

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Abstract

Introduction: Burn injury is a common cause of morbidity and mortality. Outcomes of morbidity and disability for deep burns patients still not improved. Many modalities for wound bed preparation was not satisfied. Aloe vera gel have been used as an anti-inflammatory natural agent, for treatment many deseases. It has also been used in the traditional medicine of many cultures and said to be beneficial in the treatment of disorders such as burns.

Objective: The aim of this study is to formulate a topical cream from extract aloe vera gel with wound deep burn healing effect and to performed its in rat.

Methods: An experimental study. A total of 12 wistar rats in the age range of 3 month with deep burn wounds on their both backs will select for the study. The subjects used aloe vera gel topical formulation or moist conditions on each backs as the test and control, symmetrically. And then histopathological samplings will measure.

Results: A topical cream from extract aloe vera gel play a part in increase the number of lumen vessels at inflammatory phase significantly (p<0.05). The number of macrophages, the number of fibroblast and collagen tickness at inflammatory phase and proliferation phase was increase notwithstanding not significant. A topical cream from extract aloe vera gel also has antiinflammatory effect.

Discussion: A topical cream from extract aloe vera gel play role in wound deep burn healing effect by increase of the number of lumen vessels, the number of macrophages, the number of fibroblast and collagen tickness at inflammatory phase and proliferation phase and also has antiinflammatory effect by push down of inflammatory reaction.

Keywords: deep burn injury, extract aloe vera gel, wound healing, rat