EFFECT OF TOPICAL HYALURONATE AND FREEZE-DRIED AMNION MEMBRANE ADMINISTRATION ON CK 16 PROTEIN EXPRESSION AND THE NUMBER OF EPITHELIAL LAYERS IN SUPERFICIAL WOUND OF MALE WISTAR STRAIN RATS

Abstrak:

Wound healing is a dynamic process involving mediators, blood cells, parenchymal cells and extracellular matrix. Cytokeratin (CK) 16 in epidermal wound healing, could be to promote reorganization of the cytoplasmic array of keratin filaments, an event that precedes the onset of keratinocyte migration. The essential components of extracellular matrix is hyaluronic acid, which plays a predominant role in tissue morphogenesis, cell migration, differentiation, and adhesion. The aim of this study was to analyze the effects of Low Molecular Weight Hyaluronate on the total of epithelial layer and expression of CK 16 in wound healing. Superficial-thickness excisional wounds were created along the backs of 32 wistar rats. They were divided into 2 groups. One was treated by freeze-dried amnion and 1% Low Molecular Weight Hyaluronate and the other was treated by freeze-dried amnion only as control group. Each of the groups was divided into 2 sub groups. Each of the sub groups composed of 8 wistar rats based on the periode of termination : 3rd and 7th day after wounded. Histological evaluation was done to measure the total of epithelial layer and expression of CK 16. In conclusion, compound of freeze-dried amnion and low molecular weight hyaluronate improved wound healing and reepithelialization on superficial-thickness excisional wounds.

Keyword:

low molecular weight hyaluronate, wound healing, epithelial layer, CK 16

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