IN VIVO STUDIES OF LAVENDER EXTRACTS FOR HEALING THERMAL INJURY IN RATS

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In recent years, herbal extracts obtained from medicinal plants have gained increasing interest in treatment of wounds. About 450 plant species having wound healing properties have been identified. The present knowledge of the wound healing process comprises coagulation, inflammation, proliferation, formation and accumulation of fibrous tissues, collagen deposition, epithelialization, contraction of wound with formation of granulation tissues, remodeling and maturation [1].

The selection of research methods was carried out in accordance with objectives of the work: determining of regeneration properties of \textit{Lavandula angustifolia} extract fractions with assessment of the influence on the regeneration of thermal injuries of the epithelium in laboratory animals, through the evaluation, when they are administered in different fractions.

Sodium carboxymethylcellulose gels containing 5% lavender extracts were investigated in this study for regenerative properties in thermal injury repair in laboratory rats. "Levomicol" ointment was administered as a control.

Gel formulations were administered daily to lesions in white rats. Animals were divided into 6 groups of 3 individuals. After the observation period (of 7 days) the animals were euthanized and the epithelium harvested for the study of regeneration indices.

As a result of this study, the histological sections studied in hematoxylin and eosin (HE) staining showed partial regeneration both at the epithelial and dermal levels. Regeneration indices have shown that gels containing lavender extracts can increase the proliferation of epithelial cells, the inflammatory processes being decreased.

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References: