Effect of the essential oil of *Lippia alba* (Mill.) N.E.Br. in experimental cutaneous wounds.

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**Introduction:** The cicatrization involves a cascade of cellular and molecular events that interact to reconstruct the tissue. *Lippia alba* is a species widely used in folk medicine to treat various diseases.

**Experimental part:** The EOLa was extracted from the Garden of Medicinal Plants of the UFC, by distillation with water vapor drag and chemical characterization of the constituents was performed using GC-MS. To evaluate the healing process, we used female Swiss albino mice (25-30g, n = 8/group). After the anesthesia with ketamine and xylazine, experimental wounds (1cm²) were induced aseptically on the backs of the animals. The animals were randomly divided into three groups according to the type of treatment: control (drug reference collagenase + chloramphenicol), treated (25μL of EOLa) and spontaneous (there was no treatment). Daily, we performed a clinical measure of the wound area and histological analysis in the 3⁰, 5⁰, 7⁰ and 12⁰ postoperative days (PO) in each group of animals.

**Results / discussion:** The EOLa reduced the intensity and duration of clinical edema and hyperemia. From 48 hours postoperatively, there was the formation of crust on the wounds of the three groups, which is observed until the 12th day in control and spontaneous groups. In the treated animals the formation of crust occurred until the 10th postoperative day. The major differences between the percentages of wound contraction of the treated and control groups occurred on day 3, when the average percentage contraction of area of the treated lesions was 25% and control was 7.5% (difference 17.5%). Since the difference in the treated group (34%) compared to spontaneous (50%) was 16%, which occurred on the 5⁰ day. Treatment with EOLa anticipated the emergence of the healing process, meeting on the 12⁰ postoperative day completely healed, with 100% wound contraction. The histopathological analysis showed that there was complete healing when used the EOLa, while the wounds of the control and spontaneous groups needed more time to resolution of the healing process.

**Conclusion:** The results show that EOLa causing an increase in granulation tissue formation, neovascularization and reepithelialization, thus accelerating the healing process of the skin.

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