EFFECTS OF *Pseudopiptadenia contorta* EXTRACT ON SKIN BURN: A HISTOMORPHOMETRIC STUDY IN RABBITS

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**Introduction:** Burns are injuries which causes tissue damage and can be originated by heat substances on the epidermis. The *Pseudopiptadenia contorta* bark extract (P.B.E.) is popularly used in the treatment of wounds and burns. **Objective:** The aim of this study was to investigate the effect of P.B.E. on skin scar morphology after heat injury. **Materials and Methods:** The P.B.E. was made using exhaustive extraction after maceration. A cream was formulated using Lanete 24% and P.B.E. (1% or 5%). Eighteen 60-days-old male albino New Zealand rabbits weighing 2.8Kg were used (CEUA/UFVn°064/2012). A 1.5-cm-square burn was made on the animal's dorsal skin using an electric scalpel. Three groups of six random animals each received 14 days' therapy: Control: 0.9%saline; G1: P.B.E.1%; G2: P.B.E.5%. The scar biopsies were stained with HE and picrosirius for histological evaluation. The stereological parameters of bulk density was calculated by counting points on the fibroblasts, blood vessels and inflammatory cells sections and using the ratio: (number of points on the histological structure of interest)/(number of points on the test system). Collagen maturation index was calculated by type I/III collagen ratio. The results were analyzed by ANOVA. **Results:** Although a non-significant difference between the groups, the stereological results showed enhanced values of vessels and fibroblasts density and collagen maturation index with P.B.E 1% and 5% treatment. **Conclusions:** The topical use of P.B.E stimulate fibroplasia, collagen synthesis and angiogenesis. Thus, it is a viable alternative treatment of skin burns.

**Key-words:** *Pseudopiptadenia contorta*, scar tissue, stereology.