

HISTOPATHOLOGICAL EVALUATION OF WOUNDS TREATED WITH *DIOCLEA VIOLACEA* SEED LECTIN

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Lectins are proteins or glycoproteins widely distributed in nature. The main characteristic of these proteins is their ability to specifically bind carbohydrate recognizing free molecules and/or biological structures that contain these sugars, without altering the covalent structure of the glycosyl ligands. The present objective was to evaluate the influence of the topical treatment of cutaneous wounds using *Dioclea violacea* lectin seeds. Surgical wounds (1cm²) were produced aseptically in the dorsal thoracic region in albino Swiss mice. Each wound was topically treated daily along 12 days, as follows: 150 mM NaCl (Control Group) and 50µg/mL and 100µg/mL of lectin (Treated Groups). Histopathological evaluations of the injuries have been carried after 2, 7 and 12 days after surgery. At 2nd day, in both groups, it was observed the presence of polymorphonuclear cell infiltrate in association to neoangiogenesis. At this time, a new conjunctive tissue (soft granulation tissue) was observed in T Groups. At 7th day there was presence of fibrovascular and vascular granulation tissues in T and C Groups, respectively. Finally, at 12th day, treated wounds showed reepithelization besides developed fibrous connective tissue (scar). These results suggest a potential use of this lectin to improve wound healing.

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