HEALING ACTIVITY OF CRAMOLL 1,4 IN INDUCED DIABETIC MICE MODELS

ANDRADE, F.M.¹, NEVES, F.P.A.¹, PAULA, R.A.¹, MELO, M.S.¹, SILVA, R.¹, SILVA, C.H.¹, ARAÚJO, T.F.S.¹, LIMA, V.L.M.¹, LIMA-RIBEIRO, M.H.M.¹, CORREIA, M.T.S.¹

¹ Universidade Federal de Pernambuco, Bioquímica (Pernambuco, Brasil)

The lectin purified from the seeds of Cratylia mollis is named Cramoll. The combination of the isoforms 1 and 4 (Cramoll 1,4) improved the retraction of wounds in immunocompromised mice when compared with the control group. This study evaluated the healing potential of the Cramoll 1,4 in induced diabetic mice models by clinical follow-up of lesions during 10 days. The lectin was purified by fractionation using ammonium sulphate (40–60% w/v) and the fraction obtained was submitted to affinity chromatography in Sephadex G-75. Lectin evaluation was performed by hemagglutination activity, protein concentration (mg/ml) and protein profile in SDS-PAGE. Animals were divided into two groups (n = 10) induced diabetes by a single dose alloxan (120 mg/kg) intraperitoneally. Hematologic analysis was performed in all experimental groups to confirm the diabetes, for dosage of glucose. The animals were anesthetized for the surgical procedure using 2% xilazine chloride (10 mg/kg) and 10% ketamine chloride (115 mg/kg) in intramuscularly injections. Each wound was treated daily with 100 µL of solution, as follows: (G1) control, animals topically treated with 0.15 M NaCl and (G2) treaty group, animals topically treated with Cramoll 1,4 (100 µg/ml). The clinical evaluation of wounds was held following the aspects: edema, hyperemia, secretion, granulation and epithelialization. The presence of crust was observed in all experimental animals, however, has been observed previously, formation and detachment of secondary crust earlier only in the group treated with Cramoll 1,4. G2 was also the only group that presented the formation of scar tissue and reepithelialization. G1 not presented scar tissue, staying with only the secondary crust, a tissue repair ineffective. The results presented in this study, is elucidated the healing power of Cramoll 1,4 in diabetic mice from the clinical point of view, presenting as possible a cicatricial compound in the future.

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