



## Effect of Oral Administration of D-004, a Lipid Extract from *Roystonea regia* Fruits, on Xylene-Induced Ear Oedema in Mice

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**SUMMARY.** D-004, a lipid extract from *Roystonea regia* fruits, consists in a mixture of free fatty acids, mainly of oleic, lauric, myristic and palmitic acids, whereas other free fatty acids are present in minor proportions. D-004 has been shown to reduce experimentally-induced prostate hyperplasia and to produce anti-inflammatory effects in a chronic inflammation model. The effects of D-004 on models of acute inflammation, however, have not been explored. This study investigated the effects of single oral doses of D-004 on the model of xylene-induced ear mice oedema. Mice were distributed into 6 experimental groups: one negative control and five xylene-treated groups: one positive control (vehicle), three treated with D-004 (100, 400 and 800 mg/kg) and one with indomethacin (10 mg/kg). Effects on oedema formation and myeloperoxidase (MPO) activity were assessed. D-004 at 400 and 800 mg/kg significantly reduced both variables. The reduction of MPO activity, not of oedema formation, was dose-dependent. Concluding, D-004 was effective as anti-inflammatory drug on the xylene-induced ear mice oedema, a model of acute inflammation.

**KEY WORDS:** D-004, Inflammation, Myeloperoxidase, Xylene-induced oedema.

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