



Antinociceptive and Antiinflammatory Properties of the Ethanolic Extract of *Pouteria ramiflora* Roots

Enéas A. FONTES JÚNIOR ¹, Pergentino J.C. SOUZA ¹, José L.M. DO NASCIMENTO ²,
Setsuko N. SANTOS ², Laila S. ESPÍNDOLA ³ & Vania M.M. FERREIRA ^{3*}

¹ Instituto de Ciências da Saúde, Faculdade de Farmácia,
Universidade Federal do Pará, Belém, 66075-110, Brazil.

² Instituto de Ciências Biológicas, Departamento de Fisiologia,
Universidade Federal do Pará, Belém, 66075-110, Brazil.

³ Faculdade de Ciências da Saúde, Curso de Ciências Farmacêuticas,
Universidade de Brasília, Distrito Federal, 70910-900, Brazil.

SUMMARY. The present study investigated the antinociceptive and antiinflammatory activities of the ethanolic extract of *Pouteria ramiflora* (EEPr) roots, commonly known in Brazil as “curiola”. The EEPr (50 or 100 mg/kg) produced inhibition of abdominal constrictions in mice and increased the reaction time in the hotplate test. The EEPr inhibited the inflammatory process induced by carrageenan in the rat air pouch model. When the rats were treated with 50 mg/kg of EEPr, the number of inflammatory cells harvested from the air pouch, nitric oxide metabolites levels and adenosine deaminase activity decreased by 65%, 77% and 68%, respectively. When they were treated with 100 mg/kg of EEPr, the inhibition was higher (81%, 89% and 95%) for the same analyzed parameters. The results of the experiments performed in the present study exhibit pronounced antinociception and also indicate that EEPr exerts antiinflammatory activity by interfering with the lymphocyte proliferation and NO production.

KEY WORDS: Air pouch, Antiinflammation, Antinociception, Hotplate test, *Pouteria ramiflora*, Writhing test.

* Author to whom correspondence should be addressed. E-mail address: vmmf@unb.br