



Pharmacological Effects of the Hexane and Dichloromethane Fractions from *Annona coriacea* Mart. (Annonaceae) Leaves

Orlando V. SOUSA ^{1*}, Glauciemar DEL-VECHIO-VIEIRA ¹, José J.R. G. PINHO ¹,
Maria S. ALVES ² & Maria A.C. KAPLAN ³

¹ Departamento Farmacêutico e ² Departamento de Análises Clínicas, Faculdade de Farmácia,
Universidade Federal de Juiz de Fora, 36016-330, Juiz de Fora, MG, Brazil.

³ Núcleo de Pesquisas de Produtos Naturais, Centro de Ciências da Saúde,
Universidade Federal do Rio de Janeiro, Ilha do Fundão, 21941-590, Rio de Janeiro, RJ, Brazil.

SUMMARY. *Annona coriacea* Mart. (Annonaceae) is used in Brazilian folk medicine for the treatment of various medical conditions such as stomatitis, neuralgia, headaches, furuncles and ulcers. In the current investigation, we evaluated the antinociceptive and anti-inflammatory effects of the hexane and dichloromethane fractions from *A. coriacea* employing various standard experimental models. The antinociceptive activity of *A. coriacea* was studied by acetic acid-induced writhing, formalin and hot-plate tests, and the anti-inflammatory activity of this plant was determined by carrageenan-induced rat paw edema. Inhibitions of the acetic acid-induced abdominal contortions were observed at the doses 10, 50 and 100 mg/kg. These doses also reduced the nociception produced by formalin in the first and second phases. In the hot-plate assay, the reaction time was increased at 30, 60 and 90 min in animals that received 50 or 100 mg/kg. Doses of 50 and 100 mg/kg inhibited carrageenan-induced paw edema in rats. These results demonstrate that *A. coriacea* has antinociceptive and anti-inflammatory effects, supporting the use of this plant in folk medicine.

KEY WORDS: *Annona coriacea*, Antinociceptive and anti-inflammatory effects, Folk medicine.

* Author to whom correspondence should be addressed. E-mail: orlando.sousa@ufjf.edu.br