Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **29** (7): 1107-12 (2010)

Original Article
Received: February 3, 2010
Revised version: February 11, 2010
Accepted: February 12, 2010

Antioxidant, Antiinflammatory and Antiplatelet Aggregating Activities of *Maytenus guyanensis* Bark Extract

Emerson S. LIMA [1]*, Fabiano de S. VARGAS [1] & Adrian M. POHLIT [2]

[1] *Faculdade de Ciências Farmacêuticas , Universidade Federal do Amazonas (UFAM), Rua Alexandre Amorim, 330, Aparecida, CEP 69910-300, Manaus-AM, Brazil*

[2] *Coordenação de Pesquisas em Produtos Naturais (CPPN), Instituto Nacional de Pesquisas da Amazônia (INPA), Av. André Araújo, 2936, Aleixo, CEP 69060-001, Manaus-AM, Brazil*

***SUMMARY*. In the present study, the bark ethanol extract of *Maytenus guyanensis* Klotzch (Celastraceae) was investigated for total phenol content, free radical scavenging (DPPH,ABTS, superoxide anion radical and singlet oxygen), antiinflammatory, antiplatelet and antiaggregating activities. *M. guyanensis* exhibited IC_{50} 8.2 ± 0.2, 28.4 ± 0.7, 35.6 ± 3.0 and 517 ± 70.8 μg/mL in the DPPH, ABTS, superoxide and singlet oxygen assays, respectively. Total phenol content was found to be 58.7 ± 1.7 mEq gallic acid (mg/g dry extract). Significant antiinflammatory activity was demonstrated when extract was orally administrated (400 mg/kg b.w.) reducing edema in 40 % when compared with carrageenin. Also, exhibited antiplatelet aggregating activity, with IC_{50} 142 ± 14.3, 133 ± 2.3 and 166 ± 0.3 μg/mL, for platelet aggregation, when induced by adrenalin, adenosine diphosphate or arachidonic acid, respectively. These results suggest that *M. guyanensis* bark extract could have potential applications in oxidative, inflammatory and homeostasis-related dysfunctions.**

KEY WORDS: Maytenus guyanensis, Antioxidant, Antiplatelet, Antiinflammatory.

* Author to whom correspondence should be addressed: *E-mail:* eslima@ufam.edu.br.