

Preliminary Studies on Gastric Anti-ulcerogenic Effects of *Averrhoa carambola* in Rats

Simone T. GONÇALVES ¹, Silmara BARONI ¹, Fernando A. BERSANI-AMADO ¹,
Gessilda A.N. MELO ², Diógenes A.G. CORTEZ ¹,
Ciomar A. BERSANI-AMADO ¹ & Roberto K.N. CUMAN ^{1*}

¹ Department of Pharmacy and Pharmacology, University of Maringá, 87020-900, Maringá, PR, Brazil

² Paranaense University, 87502-210, Umuarama, PR, Brazil

SUMMARY. In this study we investigated the anti-ulcerogenic potential of the water-alcohol extract of leaves of *Averrhoa carambola* (ACE). The acute effects of ACE administered by oral gavage on anti-ulcer activity were investigated in the following ulcer models in rats: lesions induced by acidified ethanol, indomethacin and acute stress. ACE, at doses of 800 and 1200 mg/Kg, *p.o.*, only showed significant anti-ulcer activity in the acidified-ethanol-induced ulcer model in rats. ACE tested by indomethacin and acute stress ulcerogenic models did not show this activity. The results suggest low anti-ulcer activity with different mechanisms of action for the anti-ulcerogenic activity observed for ACE.

RESUMEN. "Estudios Preliminares sobre los Efectos Gástricos Antiúlceras de *Averrhoa carambola* en Ratas". El potencial antiúlceras del extracto hidroalcohólico de las hojas de *Averrhoa carambola* (ACE) fue investigado en los modelos experimentales de úlcera: lesiones inducidas por etanol acidificado, indometacin y estrés agudo. ACE a las dosis de 800 y 1200 mg/Kg, sólo mostró actividad antiúlceras significativa en el modelo inducido por etanol-acidificado. ACE en modelos experimentales de úlcera inducidos por la indometacina y por el estrés agudo no han demostrado efectividad. Los resultados indican que la actividad antiúlceras del extracto es baja y presenta diferentes mecanismos de acción.

KEY WORDS: *Averrhoa carambola*, Antiulcer, Gastric ulcer, Natural products.

PALABRAS CLAVE: *Averrhoa carambola*, Antiúlceras, Productos naturales.

* Author to whom correspondence should be adressed. E-mail: rkncuman@uem.br