

Pharmacognosy, Phytochemistry & Natural Products

August 29-31, 2016 Sao Paulo, Brazil

Gastroprotective activity of *Campomanesia lineatifolia* Ruiz & Pav.

Rachel Castilho, R C Madalosso, G C Oliveira, M T Martins, A E D Vieira, J Barbosa, M V Caliarri and C A Tagliati
Federal University of Minas Gerais, Brazil

Campomanesia lineatifolia Ruiz and Pav. (Myrtaceae) is a native edible species found in the Amazon Rainforest, commonly known as gabioba. In Brazil, *Campomanesia* species are frequently used in traditional medicine for gastrointestinal disorders as dysentery, stomach problems, and diarrhea. Studies have proved few species of the same genus attenuated gastric mucosal lesions. Phytochemical investigations and specific studies on *in vivo* biological assessments or the safety of *C. lineatifolia* are rather limited. The present work describes the antioxidant, gastroprotective activities and acute toxicity data of the ethanolic extract (CEE) and ethyl acetate fraction (EAFC) of *C. lineatifolia*. By using the DPPH method, the radical scavenging activity of EEC and EAFC were investigated. Quercetin was used as control positive. Gastroprotective activity was investigated at different doses in two experimental models in rats-gastric lesion induced by ethanol and gastric lesion induced by indomethacin. Cimetidine and Sucralfate were used as positive control. The area of gastric lesion underwent macroscopic and histomorphometric evaluation. The mucus content was estimated by using periodic acid-Schiff stain. Oral acute toxicity was also available. Phytochemical studies revealed the presence of flavonoids and tannins. Catechin and quercetin were isolated by bioguided chromatographic fractionation of EAFC. EEC and EAFC presented *in vitro* antioxidant activity. Oral administration of EEC and EAFC doses at 100-400 mg/kg (ethanol-model) and at doses of 400-1200 mg/kg (indomethacin-model) proved to be effective in preventing gastric ulcerations in rats. Pretreatment with EAFC (400 mg/kg, orally) significantly increased the gastric mucus content in the ethanol model. No animals died during the oral acute toxicology test. Results confirm the Brazilian ethnopharmacological use of *C. lineatifolia* as a gastroprotective agent and anti-ulcer effect is most likely mediated by scavenging free radicals due to the polyphenol content and at least in part, by increasing the mucus secretion and the mucosal defense. In addition, EEC and EAFC are found to be safe when applied in the 2000 mg/kg single oral dose.

Biography

Rachel Castilho has completed her PhD from São Paulo University (USP), Brazil. She is a Professor of Pharmaceutical Products Department, Federal University of Minas Gerais, Brazil. She has published more than 20 papers in reputed journals

rocastilho40@gmail.com

Notes: