Evaluation of antiulcer activity and intestinal motility of *Calea prunifolia* H.B.K

**Maria Esperanza Avella Vargas**, **Antonio José Lapa**, **Maria Teresa Riggio Lima-Landman**, **Mario Francisco Guerrero** and **Caden Souccar**

1Universidad Nacional de Colombia, Colombia
2Universidade Federal de Sao Paulo, Brazil

**Aim:** *Calea prunifolia* H.B.K. (Cp), known as carrasposa has traditionally been used in Colombia as a medicinal plant. The popular use is recommended as arterial hypotensive, antipruritic, antipyretic and antiseborrheic. In the evaluation of the pharmacological profile, promising effects were found in the gastrointestinal system.

**Materials & Methods:** *Calea prunifolia* H.B.K. extracts, aqueous (EACp) and ethanolic (EECp), administered orally, were evaluated *in vivo* in groups of six mice. The experimental models used were: Cold stress induced gastric injury, 75% ethanol induced gastric injury, Pyloro ligation and intestinal transit with activated charcoal. The butanolic fraction (FBu) was evaluated *in vitro* on rat jejunal contractile activity.

**Results:** In cold stress-induced lesions, the number of ulcers cm-2 (mean±standard deviation) presented a significant difference with CPAS at doses (g/kg of weight) of 0.2 (7.7±2.3) and 0.5 (5.5±4.6) in relation to the control (15.2±6.5) and the ILM at the doses of 0.1 (19.5±1.1), 0.2 (15.3±2.2) and 0.5 (13.2±4.5) with control of (30.4±9.1). The EECp showed a significant difference in the number of ulcers and the ILM in the dose of 1g/kg (6.2±4.9) and (16.9±6.0) respectively. In the ethanol-induced lesions, the number of cm-2 ulcers with CPAS at doses of 0.2 (11.7±9.1) and 0.5 (2.0±1.5) had a significant difference in control (36.5±24.5) and ILM at doses of 0.2 24.1±13.0) and 0.5 (10.4±1.9) to the control (53.6±24.8). In pylorus ligation, no treatment group demonstrated significant difference in gastric pH relative to the negative control (water). In intestinal transit with activated charcoal, a significant difference was found in doses of 0.1; 0.2 and 0.5 g/kg EA and at doses of 0.5 EE. In rat jejunal contractile activity, there is significant difference at 37 degrees.

**Conclusions:** EACp and EECp increase the speed of intestinal transit. Direct gastro protective activity is significant, avoiding the formation and decreasing the severity of gastric ulcers induced by stress and ethanol.

**Biography**

Maria Esperanza Avella Vargas is a Professor of Pharmacology and Therapeutics at Military University of Nueva Granada; Leader of the Research Group “Pharmacology, Toxicology and Therapeutics-UMNG” and; responsible for the research seminar “Study of preclinical and clinical research of medicines for its development and application”.

maria.avella@unimilitar.edu.co