Maria Esperanza Avella Vargas et al., Biochem Pharmacol (Los Angel) 2017, 6.2 (Suppl)
DOI: 10.4172/2167-0501-C1-007

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

Maria Esperanza Avella Vargas[1], **Antonio José Lapa**[2], **Maria Teresa Riggio Lima-Landman**[2], **Mario Francisco Guerrero**[1] and **Caden Souccar**[2]
[1]Universidad Nacional de Colombia, Colombia
[2]Universidade 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 (15.33+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

María 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