Gastroprotective and antimicrobial effects of standardized extract of *Justicia pectoralis*

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**Introduction:** *Justicia pectoralis* Jacq. (Acanthacae) is an herb known as “chambá” and used for cough, bronchitis and asthma in northeastern Brazil (LINO et al., Phytoter Res, 11:221, 1997). Previous pharmacologic evaluations of both isolated compounds (coumarin/CM and umbelliferone/UMB) and hydroalcoholic extract presented anti-inflammatory effects (LEAL et al., J Ethnopharmacol, 70:151, 2000). A common side effect related to non-steroidal anti-inflammatory drugs is gastric ulcer, which occurs by the blockage of prostaglandins that maintain the integrity of gastric epithelium. So, considering the anti-inflammatory properties of *J. pectoralis* products and its use for respiratory affections, this work aimed to evaluate the gastric and antimicrobial effects of its standardized extract (SEJP).

**Methods:** SEJP was prepared by percolation using hydroalcoholic solution 20% and 24h of previous maceration; it was concentrated during 24h/40°C and the markers content (CM and UMB) was determined by HPLC as previously described (FONSECA et al., Rev Bras Farmacogn, 20:871, 2010). Additional characterization was also performed (pH, density and solid residue). Then, SEJP was evaluated in the alcohol-induced ulcer model as followed: rats (Wistar, 150-200g, female, n=8) were administered SEJP (100, 200, 400 mg/kg, p.o.) or saline and 1h later 1mL of absolute alcohol; after 30min, the stomachs were removed and the ulcerated area (%) was established. The antimicrobial potential was determined by serial dilution in plate method against standard colonies (ATTC) of *S. aureus*, *P. aeruginosa*, *E. coli*, *S. cholerasuis* and *C. albicans*; the plates (n=3) were incubated for 18h/35°C and the inhibition halo (cm) was measured.

**Results:** The physical-chemical characterization of SEJP was: CM=1,09±0,006 and UMB=0,24±0,005mg/mL; pH=6,83±0,11; d=1,004±0,001g/mL; solid residue = 3,67±0,04%. Previous administration of SEJP avoided significantly (p<0,01, ANOVA, Turkey) the ulcers induced by alcohol in all doses (100, 200 and 400mg/Kg) when compared to control (2,01±0,2; 0,74±0,3 and 0,14±0,1% vs. 4,7±0,8%, respectively). No microorganism inhibition was observed for the dilutions tested.

**Conclusion:** SEJP showed proper characteristics for its use as phytotherapeutic product and presented gastroprotection against alcohol-induced ulcers, but not antimicrobial effect. In addition, further experiments are required to elucidate the possible mechanisms involved.

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