Anticonvulsant effect of standardized extract of *Justicia pectoralis*

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**Introduction:** Herbal medicines have consistently been an important source of therapeutic agents, including to the treatment of seizures, probably with less side-effects. In this context, Standardized Extract of *Justicia pectoralis* (SEJP) is a plant widely used in popular medicine and it effect on central nervous system should be more investigated. Evaluate the possible anticonvulsant activity of Chamba in seizure models of strychnine and picrotoxin, and subsequent amino acid analysis

**Methods:** In previous anxiety studies, SEJP (200 mg/kg) increased amino acid (AA) concentrations. Animals divided in two groups (SEJP 200mg/kg, v.o. and vehicle, v.o.) were decapitated and striatum was removed to the AA analysis. AA levels were increased after SEJP treatment. To investigate a possible anticonvulsant action, animals were treated with SEJP at lower doses (25, 50 and 100 mg/Kg, v.o.) and one hour after all groups received strychnine (3 mg/Kg, i.p., to investigate the involvement of the glycine in the anticonvulsant effect) or picrotoxin (10mg/Kg, i.p., to investigate the involvement of the GABA in the anticonvulsant effect).The parameters latency for first seizure and latency to death were observed for 30 minutes.

**Results and Discussion:** Amino acid: SEJP caused an increase in the glycine and GABA when compared with control (glycine: SEJP200: 0.3636±0.149; control: 0.0920±0.025; GABA: SEJP200: 0.8008±0.267; control: 0.0644±0.034). Strychnine test: SEJP caused an increase in the observed parameters when compared with control (latency for first seizure: SEJP25: 145.6±5.38; SEJP50: 154.4±7.45; SEJP100: 153.8±9.22, control: 122.1±3.86; latency to death: SEJP25: 179.1±9.39; SEJP50: 178.8±7.10; SEJP100: 183.3±8.93; control: 144.0±4.92). Picrotoxin test: SEJP caused an increase in the observed parameters when compared with control (latency for first seizure: SEJP50: 486.7±12.85; SEJP 100: 490.7±21.82; control: 419±12.65)

**Conclusion:** Our findings suggest that the mechanism to action of anticonvulsant effect of SEJP is involved with systems of GABA and glycine

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