



SCNS. 15. Involvement of sodium and calcium channels in the anticonvulsant and antioxidant effects of Extract Standardized of *Justicia pectoralis*

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Introduction: Herbal medicines have consistently been an important source of therapeutic agents for the treatment of seizures, probably with less side-effects. Neurobiological evidence in animal and humans have indicated the role of calcium and sodium channels in seizures. The extract of *Justicia pectoralis* (SEJP), popularly named Chamba in Brazil, is a widely used plant in popular medicine, however its effects on the central nervous system is not well-known. **Objectives:** Evaluate the possible anticonvulsant and antioxidant effects of SEJP in a model of seizure using electroshock. **Methods:** To investigate a possible anticonvulsant and antioxidant action, female Swiss mice were treated with saline (control), SEJP (50 mg/Kg, p.o.) or oxcarbazepine, (OX, 60 mg/Kg, p.o). One hour after, all groups received electroshock (studying the involvement of the calcium and sodium channels in the anticonvulsant effect). The parameters of latency for the first seizure and duration of seizure were observed. For antioxidant analysis, the striatum and hippocampus were removed and catalase activity was measured.

Results: Electroshock test: SEJP caused an increased in the latency of the first seizure and decreased the duration of seizure when compared with the control (latency for first seizure: SEJP50: 198.5±6.13; control: 177.8±3.67; OX: 355.9±23.09); duration of seizure: SEJP50: 1604±89.21; control: 1918±63.06; OX: 1280±51.41). SEJP caused an increased in the catalase activity of the hippocampus when compared with the control (SEJP50:4336±164.5; control: 2058±171.9). SEJP caused an increased in the catalase activity of the striatum when compared with the control (SEJP: 33.85±5.81; control: 5.62±0.83). **Conclusion:** Our findings suggest an anticonvulsant and antioxidant effect of SEJP modulated by calcium and sodium channels.

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