PSYCHOPHARMACOLOGICAL EFFECTS OF *Artemisia copa* AQUEOUS EXTRACTS IN MICE

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INTRODUCTION

*Artemisia copa* (A. copa) Phil. (Compositae), commonly known as “copia-copa”, is a small and very branched bush that grows in the northwest of Argentina and north of Chile. The infusion of the aerial parts is used in popular medicine as antitussive, digestive, febrifuge, for the treatment of pulmonary diseases, and hypertension (1). The leaves, macerated in alcohol, are also used locally to rub off rheumatic pains. A previous pharmacological study of the plant revealed that the aqueous extract of aerial parts of *A. copa*, possess analgesic and antiinflammatory activity (2).

The aim of this study was to carry out a psychopharmacological screening of *Artemisia copa* in different experimental models in mice.

MATERIALS AND METHODS

The aerial parts of *Artemisia copa* were collected in Antofagasta de la Sierra, Catamarca Province, Argentina. The aqueous extract was prepared by macerating 50 g of powdered plant material for 20 min using 500 ml of boiling water.

The aqueous extract from aerial parts of *A. copa* (AC) administered p.o., was evaluated for its psychopharmacological activities in several experimental models using female Swiss albino mice: hypnogenic activity, Marble-burying test (3), studies on spontaneous motor activity, hole-board test (4), and pentylene tetrazol induced seizures.

The statistical test were used one-way analysis of variance (ANOVA) followed by Dunnet t-test.

RESULTS

*A. copa* at doses up to 1.5 g/kg produces a dose dependent sleep induction and potentiation of subhypnotic and hypnotic doses of pentobarbital (PB30: 0.5 ± 0.35 min, *A. copa* 1.5 g/kg + PB30: 18.24 ± 3.88 min, *P*<0.01. PB40: 34.83 ± 5.90 min, AC 1.5 g/kg + PB40: 51.33 ± 3.22 min, *P*<0.03, respectively). The extract also produced a dose dependent increase and decrease in the spontaneous motor activity (0.5-1.5 g/kg) and no modification or a decrease on exploratory (holeboard) behavioral profiles (1.5 g/kg). *A. copa* displayed dose-related anxiolitic-like activity as indicated by increases in the percent of marbles they left uncovered in the marble-burying test. In addition the extract (1.5 g/kg) produced a significative decrease in the latency time and a decrease in the duration of seizures and mortality induced by PTZ 75 mg/kg.

DISCUSSION

These results suggest that the aqueous extract of *A. copa* may contain sedative principles with potential anxiolytic and anticonvulsant activities.

REFERENCES

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