

Natureza do trabalho: Resumo

TÍTULO

NEUROPHARMACOLOGICAL POTENTIAL EVALUATION OF AQUEOUS EXTRACT OBTAINED FROM TWO DIFFERENT SPECIES OF MIKANIA

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RESUMO

Introduction: *Mikania glomerata* Spreng. and *M. laevigata* Sch. Bip. ex Baker, Asteraceae, popularly known as guaco, have been widely used by traditional medicine to treat some diseases. Studies showed some actions: bronchodilator, anti-allergic, anti-asthmatic, anti-ulcerogenic, anti-inflammatory and smooth muscle relaxant. **Objective:** To evaluate neuropharmacological potential of aqueous extract obtained from *M. glomerata* and *M. laevigata* in Marble Burying (MBT) and Forced Swimming (FST) tests performed with C57BL6 mice. **Materials and Methods:** For MBT, one hour after drug administration (200 mg/kg, p.o.), each mouse was placed individually in a propylene cage (26 cm × 14 cm × 12 cm) containing 5 cm deep sawdust and eighteen glass marbles equally spaced (3 cm from one another). After 30 minutes, mice were removed and the number of marbles covered with sawdust (at least two-thirds) was counted. For FST, mice were forced to swim individually for 5 minutes in a glass cylinder containing 20 cm of water at room temperature after one hour of drug administration (200 mg/kg, p.o.). During these 5 minutes immobility time was considered when a mouse made no effort to escape/swim and was registered. **Results and Discussion:** MBT can be used both as an indicator of anxiety-like behavior and/or obsessive compulsive-like behavior. Our tests showed that group treated with *M. laevigata* extract decreased significantly the number of buried marbles (6.3 ± 1.3) when compared to control group (12 ± 2). *M. glomerata* group showed no statistical difference. FST is a rodent behavioral test used to evaluate antidepressant drugs and experimental protocols that aim to prevent or treat depressive-like states. Our results showed a tendency to reduce immobility time for both *Mikania* groups, but the difference was not statistically conclusive. **Conclusion:** According to our test results obtained, we conclude that *M. laevigata* could be explored in other behavioral tests. Our next step is to test isolated compounds present in *M. laevigata* extract like coumarin, kaurenoic acids, stigmasterol, amino groups, and others.

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