Natureza do trabalho: Resumo

TÍTULO

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

RENAN DONOMAE IWAMOTO¹, DANilo RAMOS SPESSOTO², CÂNDIDA APARECIDA LEITE KASSUYA², ALEXANDRE AUGUSTO BORGHI¹, ALEXANDRA CHRISTINE HELENA FRANKLAND SAWAYA¹

¹UNIVERSIDADE ESTADUAL DE CAMPINAS, UNICAMP, CAMPINAS, MS, BRAZIL.
²UNIVERSIDADE FEDERAL DA GRANDE DOURADOS, UFGD, DOURADOS, MS, BRAZIL.

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 x 14 cm x 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.
References:

