

A153 Anxiolytic-like, anticonvulsive and sedative effects of the hexanic extract of *Annona cherimolia*M. Martínez-Vázquez^a, R. Estrada-Reyes^b, G. Heinze^b, C. López-Rubalcava^c, L. Rocha^c, A. González-Esquinca^d and J. Moreno^b^a Instituto de Química, Circuito Exterior, Ciudad Universitaria, Coyoacán 04510, México D.F., México. ^b Instituto Nacional de Psiquiatría "Ramón de la Fuente", Calzada México Xochimilco 101, Col. Sn. Lorenzo Huipulco, México, D.F., México. ^c Centro de Investigación y Estudios Avanzados del IPN. Departamento de Farmacobiología. Ap. Postal 22026, México D.F., México. ^d Escuela de Biología, Universidad de Ciencias y Artes de Chiapas, Tuxtla Gutierrez, Chiapas, México.

In the present study we investigated some neuropharmacological effects of the hexanic extract of the leaves of *Annona cherimolia* Mill. (Annonaceae). Intraperitoneally administration of the extract delayed the onset of tonic seizures and reduced the mortality rate induced by pentylenetetrazole (90 mg/kg). In addition, the extract presents anxiolytic-like effects when administered to mice subjected to an animal model of anxiety without modifying their general activity. Also, the extract was able to enhance the duration of the sleeping time induced by sodium pentobarbital. Taken together, these results indicate that the hexanic extract of *A. cherimolia* has depressant activity on the Central Nervous System (CNS). On the other hand the chromatographic separation of this extract led to the isolation of palmitone, and β -sitosterol as major constituents. In addition, a GC-MS study of some fractions revealed the presence of several compounds such β -cariophyllene, β -selinene, α -cubebene, and linalool which have been reported that showed effects on behavior that could explain some effects of the extract.

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A154 Antidepressant properties of some *Hypericum canariense* L. and *Hypericum glandulosum* Ait. extracts in miceC.C. Sánchez-Mateo, B. Prado and R.M. Rabanal

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In a previous study we reported that the methanol extracts from the aerial parts of *Hypericum canariense* L. (HC) and *Hypericum glandulosum* Ait. (HG), endemic species of the Canary Islands, showed antidepressant activity in mice (1). On the basis of these results, the present study was undertaken to evaluate the central nervous effects of the aqueous, butanol and chloroform fractions obtained from the methanol extracts of these *Hypericum* species on different animal models in mice, such as the effects on locomotor activity, body temperature, tetrabenazine-induced syndrome, and the forced swimming test. Student's t-test was used to verify the statistical significance, except for the percentage of locomotor activity and ptosis in the tetrabenazine assay (the χ^2 -test and Mann-Whitney test were used, respectively).

The fractions under study (500 mg/kg p.o.) did not have a significant effect on the spontaneous motor activity, with the exception of the butanol and chloroform fractions of HG which significantly reduced this activity by 22.8 and 35.74 %, respectively. In addition, the HC butanol fraction and the HG chloroform fraction produced a slight but significant hypothermia which was maintained up to the sixth hour in the case of the HG chloroform fraction. On the other hand, only the chloroform fraction of HG significantly antagonized the ptosis induced by tetrabenazine by 26 %, suggesting a certain alpha-adrenergic or serotonergic activity for it. In the forced swimming test, it was found that the butanol and chloroform fractions of both species significantly shortened the immobility time of mice, being the HG chloroform fraction the most effective (control: 166.30 ± 5.56 (s); HG: 101.33 ± 7.61 , $p < 0.01$; $n = 20$), with activity values close to that found for imipramine at 50 mg/kg p.o. (98.50 ± 11.45 , $p < 0.01$). It can be concluded that the *Hypericum* butanol and chloroform fractions assayed appear to have a certain antidepressant activity in the forced swimming test, being the chloroform fractions the most active for all species studied. Preliminary phytochemical studies revealed the presence of tannins, flavonoids and anthraquinones in these species. Further investigations about the chemical nature of antidepressant principles are in progress.

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References: 1. Sánchez-Mateo, C.C. et al. (2002) J. Ethnopharmacol. 79: 119-127.