Pharmacological investigation of the crude extract of *Passiflora manicata* and its fractions

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**Introduction:** *Passiflora manicata* is a Colombian native plant known as ‘Coruba do monte’ or ‘El diablito’ because of its alleged hallucinogenic properties, but their leaves are sold as a hypnotic and sedative medicine. The aim in this study was to evaluate the central effects of the aqueous extract (AE) obtained from the leaves of *Passiflora manicata* as well as its flavonoid enriched fractions (FEF) and residual fraction (RF).

**Methods:** Adult male Swiss mice were used. To evaluate the hypnotic-sedative activity, animals received, orally, AE (10 to 600 mg/kg, 1h) and the latency to as well as the duration of hypnosis were recorded. Mice received AE sub-chronically (100, 300 and 600 mg/kg p.o., 3 doses in 24 h) and were evaluated in an open field (OF), elevated plus maze (EPM) and tail suspension test (TST). DZP 1 and 2 mg/kg and imipramine (IMI) 45 mg/kg were used as positive control drugs, respectively. Mice received the two above mentioned fractions (3, 10 and 30 mg/kg p.o.) 1h before the TST and the OF. IMI was used as positive control in TST.

**Results:** None of the treatments modified the latency (p > 0,05) for the postural reflex loss and just DZP enhanced the duration of ether induced sleep. None of the treatments altered the distance traveled (m) (p > 0,05) in the OF, except RF 3 mg/kg that reduced this parameter in this apparatus \[F(6,54) = 2,02; p = 0,08\]. Only IMI reduced the frequency of rearing. AE did not change any of the parameters accessed in this test (p > 0,05), but DZP increased the entries \[T(16) = 3,318; p < 0,05\] and time spent \[T(16) = 3,264; p < 0,05\] on the open arms, as expected. AE 300 mg/kg increased the latency for the first immobility episode \[F (4,44) = 3,622; p < 0,05\], but no the total duration of immobility nor its frequency, IMI reduced the frequency and the duration of immobility episodes, as expected. Both fractions (30 mg/kg) and FEF (3 mg/kg) increased the frequency of immobility episodes \[F (6,55) = 4,793; p < 0,05\] and FEF (10 and 30 mg/kg) increased the duration/episode of immobility in TST \[F (6,55) = 3,537; p < 0,05\], whereas IMI reduced the frequency of immobility episodes.

**Conclusion:** AE of *P. manicata* did not show any promising effect concerning the alleged anxiolytic/hypnosedative activity and FEF exhibited a contraintuitive result that is not due to any locomotor alteration. Our hypothesis, which is presently under investigation, is that this effect is related with the putative hallucinogenic properties of this plant.

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