



Effect of sub-chronic treatment of the essential oil of *Lippia origanoides* Kunth. (Verbenaceae) on the behavior of rats.

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Lippia origanoides Kunth, known in northern Brazil as "salva-do-marajó" and "alecrim-d'Angola", is a shrubby specie with a perennial life cycle, whose aerial parts are used in cooking as a flavoring of regional dishes, in the treatment of gastrointestinal disorders, respiratory diseases, and as an antiseptic for mouth and throat irritation (1). *Lippia origanoides* already has many ethno-pharmacological applications. This species possess several chemotypes (2,3). It's essential oil, extracted from its leaves, has been identified as producer of bioactive compounds important in the antibacterial, antiviral and antioxidant protection (1). The present work evaluated the behavior effect of the essential oil extracted from *L. origanoides* leaves on the motor coordination, learning and memory in rats. The essential oil of *Lippia origanoides* (EOLo) (collected in Santarém, Pará State, Brazil) was obtained by hydrodistillation and analyzed by gas chromatography mass spectrometry and its major compounds were carvacrol (46.1 %) and thymol (11.8-%) as the main components. Sub-chronic toxic effects of orally administered oil were investigated in male Wistar rats (n=6) using the standard methods for Morris water maze (MWM), Rota rod (RR) and passive avoidance (PA) tests. Doses of 30, 60 and 120 mg kg⁻¹ of the EOLo were administered for 21 days, and in the 22nd day the experiments were performed. All the doses of EOLo did not induce significant changes in the rats spatial memory for the MWM test. In the RR and PA tests, the doses of EOLo didn't present significant difference compared to the control, suggesting that EOLo doesn't affect spatial, recent and later memory and locomotion in rats after oral administration in the experimental model used in this study.

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