Evaluation of the oral acute toxicity of *Lippia microphylla* Cham. (Verbenaceae) on mice

J. L. V. SILVA¹, A. N. D. de SÁ¹, J. B. S. ROCHA¹, J. F. TAVARES²

¹Depto. Saúde-Universidade Nove de Julho, ²DCF-Universidade Federal da Paraíba

Palavras Chave: *Lippia microphylla*; toxicity

**Introdução:** *Lippia microphylla* Cham. (Verbenaceae) is called as “alecrim-pimenta” and its leaves have been used as antiseptic and against respiratory diseases in folk-medicine (AGRA M. F., J Ethnopharmacol, 111, 383-395, 2007). There is not study of the safety or toxicity for *L. microphylla*, thus we decided to evaluate oral acute toxicity of the ethanol crude extract obtained from aerial parts of *L. microphylla* (LM-EtOH) on mice.

**Parte experimental:** the toxicity experiments were accessed in order to national legislation. Mice Swiss (35–40g) were treated with LM-EtOH (2g/kg) or vehicle (group control, 1 mL/kg TWEN-20 0.1%+water) route oral. The locomotor and behavior activity were observed during 30 to 150 minutes after administration. During 14 days the animals were weighted, feed or consume of water were monitored. After 14 days the treatments, the animals were euthanized in chamber CO₂, blood removing and the hearts, lungs and livers were isolated and weighted. The tissues were fixed in tamponed formaldehyde (10%) and processed in paraffin, following slices (5µm) were prepared in plate and stained in HE. The data were analyzed by GraphPad Prism 5.0 software, it tested for significance by Student t-test (p<0.05).

**Resultados/Discussão:** LM-EtOH (2g/kg) did not induce dies when compared with animals (n=5) received vehicle (control), thus LD₅₀ was not calculated. LM-EtOH did not modified behavior in both locomotor activity of the animals (n=5) and emotionality in open field test after 30 - 150 min. of treatment. LM-EtOH did not altered either weight, feed or consume of water after 14 days. After animals were euthanized, observed that extract decreased (p<0.05) lung weights when compared to control (control=0.9±0.04 and treated=0.7±0.03 mg/g), but histopathological modifications were not altered. The biochemical and hematological parameters also were not modified by LM-EtOH.

**Conclusão:** All results together are suggestive that the extract (2g/kg) obtained from the aerial parts of *L. microphylla* is not toxic, due inability to demonstrate anxiolytic effects and physiological system alterations.