

**Natureza do trabalho:** Resumo

**TÍTULO**

*ACTIVITY OF BLUTAPARONPORTULACOIDES ETHANOLIC EXTRACT IN INFLAMMATORY REACTION, DEPRESSION AND ANXIETY IN MICE*

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**RESUMO**

**Introduction:** Humans have used plants to treat several diseases. *Blutaparonportulacoides*, belongs to the Amaranthaceae family, Magnoliopsida class, Caryophyllales order, characterized by A. L. Jussieu in 1789. In Brazil it occurs in Atlantic Forest. Several plant species are used in Brazilian traditional communities and the pharmacological studies of plants extracts, fractions or product-derived are necessary to know new medicines for inflammatory, depressive and anxiety diseases treatment. **Objectives:** In this study, we examined the activity of aerial *B.portulacoides* ethanolic extract in inflammatory process, depression and anxiety in mice. **Methods:** Swiss mice (20 to 25g) were randomly divided into groups treated with diazepam (positive control group) (1 mg/kg dose, intraperitoneal route), vehicle (control group) (oral administration), and treatment with extract (250 mg/kg, oral administration). After 30 min from oral or intraperitoneal injection, the animals were submitted to marble burying and tail suspension test. Four hours after gavage, we did carrageenan-induced pleurisy model (Solution containing 1% of carrageenan). To evaluation of inflammatory reaction, leukocytes influx in the pleural cavity, total cell and differential leukocyte counts were performed. **Results/discussion:** The total leukocytes, but not the observation in tail suspension (depression) or marble burying (anxiety test), significantly decreased in animals treated with extract, when compared to control animals. In marble burying test the control group (G1), buried approximately 10 marbles while the *B. portulacoides* (G2), buried 10 marbles; and the group diazepam (G3), buried 3 marbles. In the tail suspension test (G2) remained in the state of immobility approximately 147 seconds (G1) stood still for 95 seconds in the state of immobility and since G3 stood about 300 segundos. **Conclusion:** From the results obtained, it was shown that *Blutaparonportulacoides* is able to reduce inflammatory reaction but no depression behavior and no anxiety were significantly.