

## **SUB-CHRONIC TOXICITY CHARACTERIZATION OF TWO SPECIMENS OF ARANTO (KALANCHOE SPP) IN WISTAR RATS**

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**INTRODUCTION:** Aranto (*Kalanchoe* spp), popularly known as "mother of thousands," is a succulent plant used for various therapeutic purposes. Its anti-inflammatory, antimicrobial, and antioxidant properties capable of neutralizing free radicals and reducing oxidative stress have already been demonstrated. However, its similarity to other species may lead to identification errors by the general population, making the proper use of the plant difficult. Furthermore, there are no studies that rule out the toxicological potential of this plant. **OBJECTIVE:** This study aimed to evaluate the sub-chronic toxicity profile in rats (OECD 407) of the plants *Kalanchoe daigremontiana* (KD) and *Kalanchoe laetivirens* (KL) through different extraction methods. **MATERIALS AND METHODS:** Ninety Wistar rats (5 males and 5 females per group, 90 days old) were kept under controlled conditions (21±2°C, 12h light/dark cycle). The animals received two doses (5 mg/kg and 150 mg/kg) of aqueous and alcoholic extracts of each plant, administered by gavage once daily for 28 days. The toxicological protocol was approved by CEUA-UNIPAMPA (registration 019/2023). Experimental groups were divided as follows: G1 (control, vehicle only); G2–G5: KD extracts (aqueous and alcoholic, 5 and 150 mg/kg); G6–G9: KL extracts (aqueous and alcoholic, 5 and 150 mg/kg). At the end of treatment, animals were anesthetized for blood collection via cardiac puncture and then euthanized. Liver, spleen, kidneys, and brain were removed for toxicological analyses. The protocol followed OECD guidelines (OECD 407). **RESULTS:** Sub-chronic treatment with aqueous and ethanolic extracts of KD and KL did not induce significant toxicity in male or female rats. No statistically significant changes were observed in lipid peroxidation levels in the analyzed organs. The activity of antioxidant enzymes CAT and SOD also remained unchanged in most tissues, except for a significant increase in SOD activity in the kidneys of rats treated with both doses of KD ethanolic extract and with the 5 mg/kg dose of KL aqueous extract. **CONCLUSION:** The results suggest that the tested extracts, under the evaluated conditions, present a satisfactory toxicological safety profile.

**Keywords:** *Kalanchoe daigremontiana*, *Kalanchoe laetivirens*, oxidative damage, antioxidant enzymes.