Study of acute toxicity of an aqueous abstract obtained from the flowers of *Kigelia africana* in Balb/c mice

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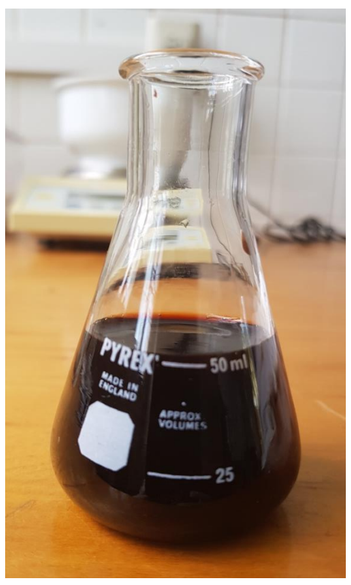
Introduction

Kigelia africana (Lam.) Benth is an arboreal species that is currently gaining great interest since the experiments on the effect of its extracts and some of its pure compounds have corroborated its medicinal properties. Toxicological effects of the different extracts of the fruit, bark of the stem and leaf but not of its flowers have been reported. So the present investigation aims to determine the toxic potential of the aqueous extract obtained from the flowers of *Kigelia africana* by the method of the acute toxic class in Balb/ c mice.

Materials and Methods

Preparation of the extract

Vegetal material



Animal model

- male and female mice
- Balb / c line
- 8-12 weeks of age

Acute toxicity by the Class Method. Three dose levels of 50, 500 and 2000 mg / Kg were evaluated according to OECD Guide 423and three Balb/c mice of different sexes were used at each level. The aqueous extract was administered orally at a single dose and observations were made for 14 days.

Results and Discussion

Oral administration of the aqueous extract (50 and 500 mg / kg) in female and male Balb / c rats did not cause mortality within 14 days of the trial. The daily systematic observations, the macroscopic analysis of the organs and their body weight showed no evidence of any sign of toxicity, unlike the doses of 2000mg / kg where only one male survived and the deaths were observed in the first 48 hours. The main clinical symptoms depression of the central nervous system and polyuria marked with signs and symptoms of dehydration, so that the product can be classified in category 4.

Conclusions

The findings revealed that the aqueous extract of the leaves of *K. africana* in low doses was safe, but high dose can have hepatorenal toxic effects. More work is needed for the determination of LD50 as well as running a standard battery of toxicological tests since no single test is capable of providing the total safety of a product.