



### **Acute toxicity absence of *Cinnamomum zeylanicum* Ness. aqueous extract on pregnant mice**

Waczuk, E. P.; Meinerz, D. F.; Montanari, T.; Rocha, J. B. T.

Departamento de Química, Centro de Ciências Naturais e Exatas, UFSM, Santa Maria, RS, Brasil.

*Cinnamomum zeylanicum* Ness (Lauraceae), popularly known as canela, is grown and commercialized for medicinal purposes and for cooking in many countries, including Brazil. Concentrated preparations from the bark have astringent, antiseptic and carminative properties. However, excessive amounts of these preparations are commonly used to induce menstruation and even abortion. In a previous study to assess its possible abortifacient activity, the bark aqueous extract decreased implantation and birth rates when administered from the first to the third day of gestation on mice. In order to verify whether this result is due to maternal toxicity, micronucleus test and biochemical testing were performed. The aqueous extract was prepared by decoction of 5g of bark in 300ml of distilled water for 10 minutes and stored frozen until administration. To establish the solid content, 10mL of the decoction were lyophilized, resulting in 6.2 mg. CF1 mice received, by gavage, 4mL/kg/day and 8mL/kg/day of the aqueous extract (or distilled water) from the first to the third day of gestation and were sacrificed on the fourth day of gestation. Blood was collected by cardiac puncture. Blood smears were performed, and 2000 cells were analyzed for the presence or absence of micronuclei. Spectrophotometric analysis of the concentration of aspartate aminotransferase (AST), alanine aminotransferase (ALT), and urea was performed with the plasma of the animals (n = 6). In these administered doses, the results did not demonstrate mutagenicity or alteration in the biochemical parameters, suggesting toxicity absence by *C. zeylanicum* during this gestational period.

Word Keys: *Cinnamomum zeylanicum* Ness; pregnancy; toxicity; mutagenicity  
Supported by: FAPESP, CNPq and CAPES