

## **CLINICAL AND CARDIOVASCULAR ALTERATIONS PRODUCED BY SCORPIONIC ENVENOMATION IN DOGS**

**THESIS:** F. F. Cordeiro submitted this dissertation for her Masters in Veterinary Medicine (Veterinary Clinic) at the Botucatu School of Medicine, São Paulo State University, UNESP, Botucatu, São Paulo, Brazil, 2003.

**Advisor:** Professor Michiko Sakate

**ABSTRACT:** Scorpionism is a common problem that occurs in tropical and subtropical countries and assumes great medical-sanitary importance due to its fatality on those more sensible individuals, being able to drive children and aged people to death. The lethal potential of the poisoning is responsible for serious cardiopulmonary alterations that the scorpionic toxin produces in its victims. The present research evaluated the effects of the *Tityus serrulatus* scorpion poison in dogs, using two distinct doses: one that simulates natural poisoning (0.4 mg/total dose), and another experimental dose (0.25 mg/kg). General clinical signals were observed at different moments after-poisoning, as well as specific data related to the cardiopulmonary system by means of systemic arterial pressure mensuration, dosage of the enzymatic activity of CK-MB, and radiographic, electrocardiographic and echocardiographic examinations. The acquired results demonstrated that the scorpion venom was capable of generating acute and reversible cardiac injury in few days under experimental doses, and produced clinical signs of light poisoning using the dose that simulated the natural accident.

**KEY WORDS:** Scorpion; dogs; cardiopulmonary alterations; *Tityus serrulatus*

**CORRESPONDENCE TO:** F. F. Cordeiro, Departamento de Clínica Veterinária, Faculdade de Medicina Veterinária e Zootecnia de Botucatu, UNESP, Distrito de Rubião Júnior, s/n, 18618-000, Botucatu, SP, Brasil. Email: [fercord@uol.com.br](mailto:fercord@uol.com.br)