

VT 03- EFFECTS OF *IPOMOEA CARNEA* IN PLACENTAL TISSUE. EVALUATION IN RODENTS AND RUMINANTSGOTARDO, A.T.¹; LIPPI, L.L.¹; VIOLIN, K.B.²; GÓRNI-
NIAK, S.L.¹

¹Research Center of Veterinary Toxicology (CEPTOX), Department of Pathology, Medicine College of Veterinary São Paulo University, 13635-900, Pirassununga, São Paulo, Brazil; ²Material Science and Technology Center - IPEN, Av. Prof. Lineu Prestes, 2242 – Cidade Universitária, São Paulo, São Paulo, Brazil.

Introduction. *Ipomoea carnea* (*I.carnea*) is a plant that is widely distributed in northeastern Brazil and in other tropical countries. Intoxication of livestock that chronically ingest this plant has been reported in several countries, being goats the main affected species. *I.carnea* contains the indolizidine alkaloid, swainsonine, as well as toxic calystegines. Related plants worldwide are *Astragalus* and *Oxytropis* species (so-called locoweeds); however, these two genera do not contain the additional toxic calystegines. swainsonine cause cellular accumulation of oligosaccharides, due to inhibition of several important enzymes, resulting in cellular vacuolization and cell death in different organs. It is well known that *I.carnea* ingestion during pregnancy leads to changes in fetal development in rats and goats; however, little is known about the effects of the *I.carnea* in placenta. **Objective.** The aim of the present study was evaluate the effects of *I.carnea* in the placental tissue of rats and goats. **Material e Methods.** Pregnant rats of experimental group were treated orally by gavage, once a day from gestation day (GD) 6 to GD19, with 7,0 g/kg of *I.carnea* aqueous fraction. Control group received only tap water by gavage. At the end of pregnancy (GD20) cesarean section was performed and placental tissue was collected for histopathological and histochemical (lectins) evaluation. Pregnant goats of experimental group were treated which *I.carnea* fresh leaves at dose of 5 g/kg/day, since gestation day 35 until parturition. Control animals received no experimental treatment. Placental tissue was collected at parturition for histopathological and histochemical (lectins) evaluation. **Results and Discussion.** Placental tissue from experimental rats showed labyrinth zone thickening and reduction of the junctional zone thickness, however the vacuolar degeneration was not observed in this organ, although when performed the lectin-histochemistry technique, it was possible to observe the accumulation of some sugars in some cells located at several regions of the placenta. Placental tissue from experimental goats showed cytoplasm vacuolization in columnar epithelium of chorioallantoic membrane, lectin-histochemistry technique revealed higher markup for the SWGA and WGA lectins suggesting that the vacuolated cells contain b-(1-4)-N-acetyl-glucosamine, and N-acetylneuramic acid in vacuoles, one of the main carbohydrates accumulated in this toxicosis. **Conclusions.** The results clearly revealed that the placental tissue is also target of toxic action of the toxic active ingredients present in the *I.carnea*. Probably, changes in fetal development observed in these two animal species exposed to *I.carnea* are also a consequence of the injury in the placental tissue that inevitably causes losses to the developing fetus.

Financial supported by: FAPESP (2006/58729-2).