

First Documented Anesthesia with Use of Low Doses of Tiletamine-Zolazepam Combination in Ovoviparous Amazon Tree Boa Undergoing Emergency Coeliotomy-Case Report

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Abstract : Tiletamine - zolazepam combination is increasingly used in veterinary anaesthesiology in wild animals, including snakes. The available literature shows a lack of information about anesthesia in this mixture in ovoviparous snakes. The studies show the possibility of using the combination at a dose of 20 mg/kg or more for snake immobilization. This paper presents an anesthetic protocol with the use of a combination of tiletamine - zolazepam at the dose of 10 mg/kg intramuscularly and maintenance with inhalant anesthesia with isoflurane in pure oxygen. The objective of this study was to evaluate the usefulness of the anesthetic protocol to proceed with coeliotomy in Amazon Tree Boa. The patient was a five years old bicolor female Amazon Tree Boa (*Corallus hortulanus*) with dystocia. The clinical examination reveals significant emaciation (bodyweight 520g), high degree of dehydration, heart rate (HR = 60 / min), pale mucous membranes and poor reactivity. Meloxicam (1 mg/kg) and tramadol (10 mg/kg) were administered subcutaneously and the patient was placed in an incubator with access to fresh oxygen. Four hours later, the combination of tiletamine - zolazepam (10 mg/kg) was administered intramuscularly for induction of anesthesia. The snake was intubated and connected to inhalant anesthesia equipment. For maintenance, the anesthesia isoflurane in pure oxygen was used due to apnea, which occurs 30 minutes after the induction semi-closed system was attached and the ventilator was turned on (PCV system, four breaths per minute, 8 cm of H₂O). Cardiopulmonary parameters (HR, RR, SPO₂, ETCO₂, ETISO) were assessed throughout the procedure. During the entire procedure, the operating room was heated to a temperature of 26 degrees Celsius. Additionally, the hose was placed on a heating mat, which maintained a temperature of 30 degrees Celsius. For 15 minutes after induction, the loss of muscle tone was observed from the head to the tail. Induction of general anesthesia was scored as good because of the possibility of intubation. During the whole procedure, the heart rate was at the rate of 58 beats per minute (bpm). Ventilation parameters were stable throughout the procedure. The recovery period lasts for about 4 hours after the end of general anesthesia. The muscle tension returned from tail to head. The snake started to breathe spontaneously within 1,5 hours after the end of general anesthesia. The protocol of general anesthesia with the combination of tiletamine- zolazepam with a dose of 10 mg/kg is useful for proceeding with the emergency coeliotomy in maintenance with isoflurane in oxygen. Further study about the impact of the combination of tiletamine- zolazepam for the recovery period is needed.

Keywords : anesthesia, *corallus hortulanus*, ovoviparous, snake, tiletamine, zolazepam

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