DYSTOCIA IN A GREEN ANACONDA
(Eunectes murinus)

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While egg retention is well documented in oviparous snakes, dystocia in viviparous snakes appears to be less common. In addition, dealing with giant species (which are still legal pets in most states) presents additional technical difficulties regarding handling, diagnostics, anesthesia and surgery. A case report involving a large anaconda is presented as an example. Reviews of snake reproduction and dystocia can be found in published texts.

CASE REPORT
An adult female green anaconda (Eunectes murinus) was quarantined following acquisition from another institution. Despite routine preventative medical procedures and assisted feeding, the snake failed to thrive in captivity. At the time of referral, the anaconda weighed 44.2 kg, and was estimated at 5.5 m (18 feet) in total length. The snake was alert but considered to be in poor body condition. Hematology and plasma biochemistry were unremarkable. The snake was premedicated with 40.5 mg butorphanol (Torbugesic, 10 mg/mL, Fort Dodge Animal Health) intramuscularly and anesthesia was induced with 280 mg intravenous propofol (Propofol, 10 mg/mL, Abbott Laboratories) into the caudal (ventral coccygeal tail) vein. Endotracheal intubation using a 4.5-mm cuffed tube facilitated maintenance of anesthesia using 2% to 5% sevoflurane (SevoFlo, Abbott Laboratories) in oxygen delivered by intermittent positive pressure ventilation. Anesthetic monitoring included pulse oximetry, Doppler, and esophageal temperature. Perioperative fluid support (160 mL/hr) was administered via a catheter inserted into the caudal vein. Survey (lateral, horizontal beam) radiographs indicated two retained fetuses 110 to 200 cm cranial to the vent. A standard surgical coeliotomy was undertaken. The first incision, started 72 cm cranial to the vent, and extended for 53 cm. Upon entry into the coelom the two oviducts were identified and exteriorized and a well-formed fetus was located lying between the two oviducts in an ectopic position. The second fetus was desiccated, had broken up into several sections, and was also located external to each oviduct. To remove all parts of this second fetus, a second incision (10 cm) was started 11 cm cranial to the first, and a third incision 9 cm was required 6 cm cranial to the second. The three surgical sites were irrigated with sterile saline. Coeliotomy closure was routine. The snake made an uneventful recovery and was discharged with ceftazidime (1 g Fortaz, GlaxoSmithKline), 20 mg/kg IM q 72 hrs for 5 treatments. The snake consumed a rabbit with minimal assistance 3 weeks after surgery. The snake voluntarily fed for the first time in over a year, 6 weeks after surgery. Sutures were removed 8 weeks after surgery. The anaconda has continued to improve and is now feeding regularly without assistance.

REFERENCES

Figure 1. (a) Handling a large constrictor requires several experienced handlers, especially for accurate restraint for blood collection and anesthetic induction. (b) Lateral (horizontal beam) radiograph demonstrating the spinal column of a retained fetus (arrows).
Figure 2. (a) Anaconda intubated and being maintained on sevoflurane on a rebreathing ventilator circuit – temperature and pulse oximetry readings are visible. (b) Surgical positioning of large snakes can be challenging, and in this case required the use of three surgical tables.

Figure 3. (a) A standard snake coeliotomy technique is used for giant snakes – bipolar radiosurgery is being used to ensure hemostasis. (b) Removal of a retained and mummified ectopic fetus lying between the two oviducts (arrows).