Reptile Medicine 101: A case based approach to common problems

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In this webinar, I will review a series of real life cases of reptiles presented to a vet clinic as requested from several attendees in my last reptile webinar. During this process I hope to give broad insights into the species biology, case history, captive husbandry and nutritional factors that contributed to each issue as well as outline the diagnostic plan and subsequent treatment. Challenges in client communication and education for each case will be explored and discussed, as well as a wider discussion on the ethics of keeping certain reptile species in captivity.

The aim is to encourage critical thinking in how to approach the reptile consult. I also want to equip the first opinion clinician with the ability to recognise the common and not so common pet reptile species and comment with authority on their appropriate captive care. Practical tips on prognostic indicators, diagnostic techniques and successful treatment will be given on medical treatments, pharmacology, analgesia, anaesthesia and surgical techniques. As I'm aiming to cover many different cases, I cannot cover all of these areas for each case, but will mention the relevant and useful points that each case entails to maximise learning outcomes.

A broad range of common problems will be covered throughout the case studies ranging from abscesses, metabolic bone disease, follicular stasis, egg binding, tortoise shell injuries and post hibernation anorexia, respiratory disease in snakes, prolapses and a few unusual cases like a rather delicate cardiac surgery on a venomous snake! Following this webinar, clinicians should be confident enough to tackle and treat many common presenting complaints in reptiles successfully.

The following is a brief summary of each of the cases discussed:

1. River Turtle: male freshwater turtle, female cage mate bit phallus when extruded, laceration & swelling caused prolapse. Could not replace. Analgesia, antibiosis, surgery = phallus amputation (chelonians have single phallus so cannot breed in future; lizards & snakes can still breed if have a hemipenile amputation).

2. Spur-thighed Tortoise: aural abscess, post hibernation, poor husbandry/nutrition outdoor garden system without proper supplemental heating and lighting, debilitated condition going into hibernation, succumbs to infection, possible hypovitaminosis A also causing squamous metaplasia of ducts contributing. Debulking with local anaesthesia, flushing w/dilute povidone iodine/F10, aggressive correction of environmental husbandry and nutrition.

3. Corn snake: Obesity caused by chronic overfeeding, inherited by new carer, needs diet management and increased activity. DDx: Tumour, egg binding/follicular stasis, faecolith, oedema (cardiac/renal disease).

4. Bearded Dragon: Anorexic, wasting, avascular necrosis of tail, suspected injury, ascending so surgery opted for w/appropriate analgesia and targeted AB. Later developed vasculitis in other limbs, ill thrift, husbandry excellent however. Tested positive for Adenovirus (now Atadenovirus), many possible presenting signs, becoming more common (http://www.anapsid.org/adenoviruses.html).

5. Leopard gecko: husbandry basic, heat mat, no thermostat or UV lighting, poor supplementation schedule, mealworms primary diet. Prolapsed penis, looked necrotic, on closer inspection sloughed skin retained and marge sperm and epithelial cell debris plugs adhered to hemipenes causing unilateral prolapse. Healthy hemipenes underneath so anticipated amputation diverted. Cleaned, flushed, needed supportive feeding and rapid adjustment of husbandry and diet (vitamin A, multivit/mineral, Ca:P ratio of insect feeders, gutloading)

6. Marginated tortoises: basic first aid after fox attack, O distraught! Cleaning, pain relief, topical antibiosis. Regrowth impressive due to exceptional husbandry and nutrition.

7. False water cobra: congenital defect in body wall, exposing beating heart behind think coelomic membrane! Later identified as possible genetic issue associated with single bloodline. Ketamine/medetomidine IM, intubate for Sevo, meloxicam, butorphanol. Debride & resuture muscle layer, avoiding beating three chambered heart!

8. Royal python: husbandry 'standard' RUB/rack system but debate whether acceptable/useful/ethical?? Oral/rostral abscess, cage rubbing possible underlying progressed to concurrent resp infection (R.I.). Debulk abscess, flushed nasal chambers and abscess w/dilute F10, trach wash sometimes useful but associated risks. Broad spec antibiosis R.I. in snakes? Enro/marbofloxacin Vs Ceftazidime (Fortum) injections? Change housing syatem for R.I. snakes.

9. Yemen chameleon: female, reached sexual maturity, off food, distended abdomen, no male, rapid growth, lighting, temperature and nutrition suboptimal. Follicular stasis = spherical soft tissue opacities. Won't progress to egg laying at his stage despite medical/husbandry efforts, requires surgical ovariosalpingectomy. Mention chance of recurrence and technical difficulty of surgery.

10. Bearded dragon: true dystocia/egg binding, poor husbandry (temperatures & UVB provision), nutrition (hypocalcaemia) or sometimes stress related (lack of nest site/disturbance). Treat with appropriate hospitalisation, reduce stress, correct hydration, negative energy balance, calcium levels & vit D3 manufacture w/intense UVB provision. RADs first to r/o obstructive disease before starting medical Tx w/calcium & oxytocin injections. INI or obstructed then surgery indicated.

11. Spur-thighed tortoise: post hibernation anorexia, hypovitaminosis A, aural abscess, stomatitis, runny nose syndrome (herpesvirus?). Supportive care critical, husbandry and nutrition of several years' duration contributes here, changing minds very difficult sometimes. Oesophagostomy tube placement critical. (http://lafeber.com/vet/a-guide-to-esophagostomy-tube-placement-in-chelonians/)