



The Work-Up

Diagnostic Services Unit | Issue 8 - July/August, 2023

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DSU Announcements

Holiday Closures:

Canada Day: Monday July 3, 2023 (observed)

Alberta Heritage Day: Monday, August 7, 2023

Congratulations to our ancillary services technician, Makaela Douglas, who is starting veterinary school at UCVM this fall as part of the class of 2027!

Welcome Dr. Katie Waine (anatomic pathologist) to the DSU team!

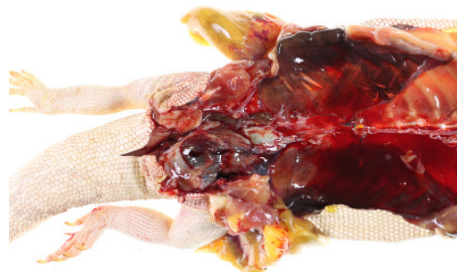
What do you get when you cross an angry cow with an angry sheep? (answer at end)

SPOTLIGHT

Dr. Lindsay Rogers completed her BSc in Chemistry from Trinity Western University in 2011 and then obtained her DVM from WCVM in 2015. After graduating, she went onto an internship in Equine Field Service at WCVM, after which she moved back to Calgary and spent a few years in private equine practice. Dr. Rogers returned to school, this time at UCVM to complete her MSc in Veterinary Epidemiology in 2020. She joined the DSU as the Program Outreach Coordinator for the livestock services expansion at the DSU in 2021 where she manages stakeholder and industry outreach, disease surveillance data, and is chair of the Veterinary Outbreak Investigation Service.



A tail base aneurysm was diagnosed in a 6-year-old, female bearded dragon that presented for dragging a hind limb and vent prolapse, which progressed to worsening hind end neurological deficits and eventual euthanasia. A coelomic mass was present on ultrasound. On necropsy, a very large mass was present at the tail base suspected to be an aneurysm or neoplasia. An aneurysm was confirmed histologically with secondary thromboemboli in the lungs and heart. Aneurysms are well described in bearded dragons, typically arising in the head and neck or cranial coelom from the aorta or internal carotid artery. In this case clinical signs were thought to



Tail-base aneurysm, bearded dragon

be due to the space occupying mass combined with reduced hind end perfusion.

Cervico-thoracic spinal kyphosis and scoliosis were diagnosed in related 3-month-old draft horses that were “unable to raise their heads”. The foals were by the same sire but out of unrelated dams; however, one dam had a foal with similar clinical signs the previous year. That foal progressed to hind end ataxia and was euthanized without diagnostics. Static and dynamic spinal cord compression and tracheal deformation occurred secondary to the spinal malformations. Ulceration and thickened keratin on their tongues were also present, suspected due to abnormal head positions while chewing and alterations to types of food the foals were able to eat. The congenital malformations were suspected to be hereditary from the sire and it was recommended that he be removed from the breeding program.

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Diagnostic Services Unit

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DSU Team

Anatomic Pathologists:

Dr. Jennifer Davies
Dr. Dayna Goldsmith
Dr. Ashish Gupta
Dr. Cameron Knight
Dr. Carolyn Legge
Dr. Jamie Rothenburger
Dr. Katie Waive
Dr. Amy Warren
Dr. Erin Zachar

Clinical Pathologists:

Dr. Angelica Galezowski
Dr. Catherine Wagg
Dr. Amy Warren

Microbiologist:

Dr. Beverly Morrison

Support Staff:

Jim Carlsen
Dr. Manga Devi
Makaela Douglas
Mai Farghaly
Karan Gadani
Lori Goodbrand
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Samantha Lewin
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Dr. Lindsay Rogers
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Hemagglutinating encephalomyelitis virus (HEV) was detected in 2-week-old piglets that died suddenly from gilt litters in a commercial farm. The piglets had cyanotic noses and ears with some frothing at the mouth. There were no overt changes on gross necropsy but a necrotizing bronchointerstitial pneumonia was present on histology highly suggestive of a viral infection. PCR was negative for common porcine respiratory viruses including swine influenza, PCV-2, and PRRS. HEV was detected by PCR from lung tissue. This porcine coronavirus is more typically associated with vomiting and wasting disease (VWD) and/or encephalomyelitis in piglets but has more recently been identified as a cause of viral pneumonia in piglets.

Coxiella burnetii was the cause of early neonatal death in a calf from a black angus heifer. The calving was assisted with the amniotic fluid described as “dirty”. On necropsy, no gross lesions were found and on histopathology necrotizing placentitis with vasculitis was present. PCR on the placenta was positive for *Coxiella burnetii*, the agent of Q-fever and negative for *Chlamydia abortus* and *Ureaplasma diversum*. *Bacillus licheniformis*, another known cause of bovine fetal loss, was cultured from the placenta. *C. burnetii* is a zoonotic pathogen that can cause flu-like symptoms in people and pregnancy loss in women exposed to birth products or dust contaminated with the bacteria. It is more commonly associated with sheep

and goat abortions but does occur in other ruminant species. Occasionally the disease in people can be chronic resulting in endocarditis and death if not treated appropriately. This case highlights the need for appropriate PPE, including N95 respirators, when performing bovine fetal necropsies.

Renal medullary necrosis was found in a 1-year-old female dog following meloxicam administration for post-operative pain following routine ovariohysterectomy. The dog had normal pre-operative bloodwork before her spay procedure and received meloxicam for 5 days. She was doing poorly and re-presented 10 days following her spay and had bloodwork consistent with acute renal failure but normal looking kidneys on ultrasound. Gross necropsy showed bilateral acute severe renal medullary necrosis that was confirmed by histology. This finding is consistent with analgesic nephropathy in association with the use of NSAID drugs. No other pre-existing or concurrent condition was found that may have impacted the dog's response to medications.



Renal medullary necrosis, dog

Tips & Tricks

The UCVN Veterinary Outbreak Investigation Service (VOIS) is a service offered by UCVN to assist private veterinarians in Alberta in working up unusual animal health events that are not reportable foreign animal diseases. This includes disease outbreaks, loss of productivity, or situations in which human disease risk is present. For more information please visit: <https://vet.ucalgary.ca/departments-units/dsu/vois>

Answer: A baaaaaad mooooood.