



The Work-Up

Diagnostic Services Unit | Issue 18 - May/June, 2025

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SPECIAL EDITION: Heart cases

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DSU Announcements

Holiday Closures:

Victoria Day: Monday, May 19, 2025

Canada Day: Tuesday, July 1, 2025

The DSU welcomes anatomic pathologist, Dr. Nicole Rose to the team!

Please do NOT attach animal medical records to your DSU submission forms as they typically do not provide adequate context for the submitted case and occasionally contain confidential client information. **Case history and context should be summarized in the history box on the DSU submission form.**

Please contact us prior to submitting a legal or insurance case.

SPOTLIGHT

Ciara O'Higgins is a DSU Necropsy Technician and completed her BSc in Natural Sciences with Zoology at Trinity College Dublin, Ireland in 2015. She moved to Canada shortly after where she worked in various wildlife rehabilitation and zoological facilities. After deciding to make the move permanent, she obtained her Animal Health Technology diploma at NAIT in Edmonton. Since then, she has worked as a Registered Veterinary Technologist in small animal practice and wildlife rehabilitation, and as a pathology technician at the Animal Health Centre laboratory in British Columbia. She joined the UCMV Diagnostic Services Unit team in February 2023 and is excited to be a part of the unit as it grows.



Acute rupture of an aortic root aneurysm led to the death of an 18 year old thoroughbred gelding. Diagnosis was made on gross necropsy as a defect at the base of the aorta and an associated hemopericardium was found on opening the pericardial sac. Aortic root aneurysm rupture results in sudden death, usually with no preceding clinical signs. It typically affects equine athletes and breeding stallions.



Horse, aorta, rupture (PC: Mel Nicolas)

Traumatic reticulopericarditis (hardware disease) was the cause of death in a 5 year old red angus cow. Diagnosis was made on necropsy as a large wire was identified within a draining tract that extended from the forestomachs, through the diaphragm,

and penetrated into the pericardium. Along the draining tract were multiple large abscesses. This led to pericarditis and heart failure with abundant thoracic fluid likely resulting in clinical cardiac and respiratory compromise. Hardware disease occurs when a sharp object, such as a nail or piece of wire, is swallowed and falls directly into and penetrates the reticulum. Often hardware disease results in localized peritonitis and adhesions but can cause more severe outcomes such as pericarditis as in this case.



Bovine, heart, pericarditis and abscess

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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. Nicole Rose
Dr. Jamie Rothenburger
Dr. Katie Waive
Dr. Erin Zachar

Clinical Pathologists:

Dr. Angelica Galezowski
Dr. Catherine Wagg
Dr. Amy Warren (*on leave*)

Microbiologist:

Dr. Beverly Morrison

Parasitologist:

Dr. Sawsan Ammar

Virologist:

Dr. Maria Bravo Araya

Support Staff:

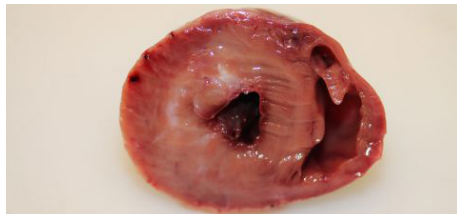
Jim Carlsen
Nancy Coulter
Sandra Damianos
Travis Davidson
Dr. Manga Devi
Dr. Camila Meira
Mai Farghaly
Patrick Fuller
Karan Gadani
Lori Goodbrand
Chloe Ingham
Lilit Karapetyan
Jennifer Larios
Kelsey Lennon
Mel Nicolas
Ciara O'Higgins
Dr. Lindsay Rogers
Sara Skotarek Loch
Melanie Stenner
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DSU Contact Information

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Calgary AB, T3R 1J3



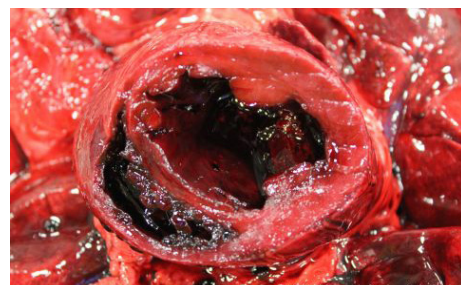
Hypertrophic cardiomyopathy (HCM) led to the sudden death of a 10 year old male neutered cat. On necropsy, the heart was enlarged with concentric hypertrophy of the left ventricle. Histopathology confirmed severe interstitial myocardial fibrosis. HCM can cause sudden death without clinical signs in cats, suspected due to sudden arrhythmogenic events. Severe HCM can also result in heart failure or aortic thromboembolism.



Cat, heart, hypertrophic cardiomyopathy

Dilated cardiomyopathy (DCM) resulted in the death of a 5 year old male neutered large breed dog following an uneventful anesthesia. On necropsy, right ventricular dilatation

and thinning of the ventricular free wall were noted. The suspicion of DCM was confirmed on histopathology with changes consistent with myocardial degeneration and necrosis with fibrosis. The cardiomyopathy likely led to cardiovascular decompensation and failure and thus sudden death. DCM has a higher prevalence in middle-aged, large breed dogs and eventually results in congestive heart failure. Taurine deficiency caused most historic cases in cats and thus DCM is no longer common in cats as taurine is added to commercial cat food.



Canine, heart, dilated cardiomyopathy



The Organizing Committee is excited to welcome you to ISWAVLD 2025 in Calgary from June 12-14, 2025 for world-class CE right at your doorstep. [Learn more and register now!](#)

Tips & Tricks

The equine head, heart, and hooves have symbolism steeped strongly in the thoroughbred racing tradition with the head representing the will to win and intelligence; the heart, courage; and the hooves, speed. These qualities are not limited to just the thoroughbred but can be applied across all breeds and disciplines.

Given the large size of a mature horse, these three pieces are often chosen for burial or cremation, rather than the whole body. Following necropsy, the Diagnostic Services Unit offers preparation of partial equine remains for private cremation. The head, heart, and hooves of the horse are sent to the crematorium arranged by the submitting clinic. This is a great option for cost-conscious owners wanting to have their horse cremated and have a smaller quantity of ashes returned to them.

Please refer to our Fee Schedule for our handling charges for both whole and partial cremation. Contact your crematorium for the cost of cremation and memorial keepsakes.



PC: Diane Williams