UCDAVIS VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System

CAHFS CONNECTION

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CAHFS employees recognized at 2020 AAVLD annual meeting

At the recent annual (virtual) meeting of the American Association of Laboratory Diagnosticians (AAVLD) several CAHFS employees were recognized for their outstanding work.

Dr. Kris Clothier

Dr. Kris Clothier, CAHFS Bacteriology discipline head, received the prestigious BioMic award for Excellence in Diagnostic Veterinary Microbiology.

Dr. Omar Gonzales Viera

Dr. Omar Gonzales Viera, pathology resident at CAHFS Davis, received the AAVLD/ACVP award for the best oral pathology presentation for his paper on "Infectious bronchitis virus prevalence, characterization and strain identification in California backyard chickens".

Ms. Mindy Plunkett

Ms. Mindy Plunkett, Supervisor of the CAHFS Davis Receiving Section, was the recipient of the national Outstanding Performance Award for Diagnostic Service. This award goes to a staff member who has performed their laboratory duties on behalf of their clients in an outstanding fashion.

Congratulations on a job well done!

Equine

Hemangiosarcoma in the lung caused multiple, increasingly intense, episodes of epistaxis originating from the lung over one week in a 15-year-old Halflinger mare. The PCV was 20%. On ultrasound, the ventral part of the lungs appeared consolidated and had suspect surface nodules. Bronchoalveolar lavage showed no evidence of neoplasia or inflammation. The mare was unresponsive to multiple treatments and was euthanized. At necropsy, the lungs had multifocal gray nodules up to 2cm diameter in all lobes, interspersed with some areas of firm parenchyma. The renal cortex had a small number of dark red nodules, up to 1 cm diameter. Histology revealed hemangiosarcoma in the lungs and kidneys. In the lungs, there were sites of severe intra-alveolar hemorrhage and fibrosis accompanying the factor VIII (a marker for endothelial cells) positive tumor cells.

Equine protozoal myeloencephalitis (EPM) was diagnosed in a 2-year-old Thoroughbred mare with a history of stumbling during a race, followed a week later by rapidly progressive neurologic signs, including circling, leading to euthanasia. Gross abnormalities were not observed on postmortem examination. On histology, extensive inflammation was observed in the brainstem and *Sarcocystis neurona* was detected by immunohistochemistry within the lesions.

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Bovine

Chronic laminitis with rotation of P3 in all four feet was diagnosed in three, 75- to 80-day-old calves from a calf ranch with 5,000 animals in hutches, and a 3% rate of laminitis. Clinical signs began about 30 days earlier, and consisted of calves progressively sinking in all four fetlocks until the dewclaws were almost touching the ground. This was accompanied by marked and accelerated growth of the hoof wall (20cm vs normal of 4-5cm). Affected calves were reluctant to stand and some developed decubital ulcers. The most common cause of laminitis in cattle is excessive carbohydrates in the diet. All three calves had mild rumenitis on histology exam.

Small Ruminants

Thevetia bicornuta (yellow oleander) toxicosis caused the death of a 13-month-old Alpine doe after some plant clippings were placed in the pen. The doe and two herd mates developed diarrhea and pale mucous membranes, and the doe died five hours after onset of diarrhea. At necropsy, there was cardiac hemorrhage, tracheal congestion, and pulmonary congestion and edema. Fragments of leaves were found in the rumen. Histopathology confirmed myocardial necrosis. The plant fed to the goats was identified as *Thevetia bicornuta*. The plant and rumen contents both contained peruvoside, neriifolin and cerberin, all cardiac glycosides, which cause similar disease to oleandrin, the toxic principle of *Nerium oleander.*

Pig

A **chronic abscess within the cranial cavity** was detected in an approximately 4-year-old Duroc sow with a 6-month history of neurological signs that started with a head tilt and progressed to leaning and falling to one side, and terminal seizures. On necropsy an approximately 3 cm diameter firm abscess with a thick fibrous connective tissue capsule was found adjacent to, and compressing, the right side of the brain stem and cerebellum. Aerobic cultures were negative but histologically the mass was consistent with a bacterial abscess that is presumed to have originated in the inner or middle ear.

Poultry and Other Avian

Aspergillosis was diagnosed in two flocks of 9-day-old chicken broilers. The birds presented for gasping and elevated mortality. On necropsy, most birds had yellow, mucoid plugs partially occluding the trachea, in the region of the syrinx. *Aspergillus favus, Aspergillus fumigatus* and *Zygomyces* fungi were isolated from the lungs. The source of infection was most likely contaminated bedding material.

Hadjelia truncata **(gizzard worm)** caused weight loss despite a full crop in a 5-year-old homing pigeon from a group of 30, in which two had died previously. On gross exam, the koilin of the gizzard was markedly roughened and thickened at the posterior and anterior margins, and numerous nematodes were present under and within the deep koilin layer. This parasite has been associated with emaciation in pigeons.

Holiday Schedule

CAHFS will be open, but will have limited service on Wednesday, November 11, 2020 in observance of Veteran's Day.

CAHFS will be closed on Thursday, November 26, 2020 in observance of Thanksgiving and will be open from 8 am to 12 noon on Friday, November 27, 2020 as it is a University of California holiday.

Please contact your laboratory to plan your testing needs accordingly.