

CROSS-CANADA DISEASE REPORT

RAPPORT DES MALADIES DIAGNOSTIQUÉES AU CANADA

Ontario

Equine pulmonary cryptococcosis

A six-year-old, male Standardbred horse that had not been racing well for a few weeks developed signs of severe colic and was euthanized. The horse was in good body condition and had diffuse peritonitis and a perforated ulcer in the cecum approximately 35 cm from the ileocecal junction. Focal areas of thickening and fibrosis were present in the wall of the base of the cecum and in the large colon. In addition, several firm, nodular areas were palpated in the right caudal lung lobe. Histologically, the pulmonary nodules contained mononuclear inflammatory cells (mainly plasma cells and lymphocytes), numerous *Cryptococcus sp.* yeast-like organisms, and mild fibrosis. Numerous hemosiderin-containing macrophages were present throughout the lung sections.

The horse had been purchased within the previous six months. The specific source of infection was not determined. There was no evidence that the cecal problem was related to the pulmonary infection. Nasal and CNS tissues were not examined.

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Saskatchewan

Immune-mediated intestinal disease of Basenji dogs

An 8-year-old male Basenji had a 4-year history of diarrhea which was responsive to antibiotics on an intermittent basis. The dog underwent an episode of severe diarrhea and weight loss, and the owner requested euthanasia. The owner had euthanized another dog from her kennel one week previously for the same problem. Formalinized tissues were received from examination. All sections of intestine revealed severe crypt hyperplasia with blunting and fusion of villi. The lamina propria was infiltrated by large numbers of plasma cells and fewer lymphocytes. The epithelial cells appeared normal.

This condition is recognized in Basenji dogs but the etiology is not established although a hereditary basis or predilection is suspected. Since the mechanism is probably autoimmune, measurement of gamma globulin levels may pinpoint asymptomatic but affected animals for culling.

Reference: Ochoa R, Breitschwerdt EB, Lincoln KL. Immunoproliferative small intestinal disease in Basenji dogs: Morphologic observations. *Am J Vet Res* 1984; 45: 482-490.

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Western Canada

Rabies Diagnoses January 1-June 30, 1987

Species	BC	AB	SK	MB	YT	NWT	Totals
Cat	0	2	10	1	0	0	13/ 532
Cattle	0	1	15	7	0	0	23/ 200
Dog	0	0	2	0	0	1	3/ 348
Horse	0	0	0	1	0	0	1/ 7
Bat	0	1	3	0	0	0	4/ 135
Ferret	0	0	1	0	0	0	1/ 5
Fox	0	0	0	0	0	2	2/ 42
Raccoon	0	0	1	0	0	0	1/ 38
Skunk	0	24	409	26	0	0	459/1521
Other	0	0	0	0	0	0	0/ 226
Totals	0/90	28/937	441/1739	35/279	0/2	3/7	507/3054

From January 1 to June 30, 1987, the rabies unit at ADRI, Lethbridge, received 3,054 specimens, 507 of which were diagnosed rabid. These unprecedented numbers indicate that the rabies enzootic in Western Canada is still growing. Dramatic increases were observed in Saskatchewan and to a lesser extent in Alberta. Skunks from Saskatchewan accounted for 80.8% of all positive cases, similar to their predominance in the preceding 6 months. There was an overall increase of 56.6% in the submission rate over the previous six months and a 73% increase over the same six months in 1986. The total number of positive cases increased 106% over the previous six months, and 80% over the same six months in 1986. The two rabid cats in Alberta were from "isolated" locations, i.e. approximately 150 miles from the nearest previously diagnosed rabid animal. These two specimens were typed (Webster, ADRI, Nepean) and were found to be infected with skunk-type rabies virus. The tale shows that spillover occurred from skunks to the domestic population of mammals; the majority of these were cattle and cats.

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British Columbia

Deaths caused by barbiturate poisoning in bald eagles and other wildlife

Early in 1987 a number of wild eagles were seen to be sick and weak, and those dying or found dead were found to have succumbed to pentobarbital poisoning. Since then a circus tiger and another bald eagle from a game farm have also been diagnosed as succumbing to barbiturate poisoning. Other animals and birds at the game farm were obviously affected but they recovered.

These events lead to speculation as to the source of this controlled substance. One distinct possibility is that these deaths resulted from consumption of meat from the carcasses of animals euthanized with barbiturates. This observation speaks for itself in terms of the responsibility of veterinarians to ensure appropriate disposal of euthanized animals, including advice to owners who dispose of their own livestock following its euthanasia by a veterinarian.

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Contributions are welcome
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EXERCISE IN ELECTROCARDIOGRAPHY

EXERCICE EN ÉLECTROCARDIOGRAPHIE

Michael O'Grady and Dana Allen

A 14-year-old, neutered male, terrier cross was presented because of the following problems: vomiting, anorexia and lethargy of 4 days duration. This dog has been noted to have a heart murmur of mitral valve insufficiency for about four years. Over the last six months a non-productive cough developed which was treated with furosemide and digoxin. The dog is presently still on furosemide and digoxin.

Physical examination revealed the following: temperature, heart rate and respiration were normal; auscultation revealed a grade 4 of 6 pansystolic heart murmur with a point of maximal intensity over the left cardiac apex (typical of mitral valve insufficiency). Fine crackles on end-inspiration (typical of small airway disease) were detected on lung auscultation. No other abnormalities were noted.

To evaluate the significance of the cardiac disease, an electrocardiogram was obtained. A lead II rhythm strip with a sensitivity of 1 cm = 1 mV and paper speed of 50 mm/sec is illustrated.

Electrocardiographic Interpretation:

The heart rate is approximately 150 beats per minute. The rhythm is sinus (there is a P wave for every QRS complex, the P wave is normal for lead II [positive], and the P wave maintains a relatively constant relationship with the QRS complexes). The P wave duration is 0.05 seconds (2.5 boxes). The P wave amplitude is 0.35 mv. The PR interval is 0.14 to 0.16 seconds (7 to 8 boxes). The QRS duration is 0.05 seconds (2.5 boxes). The R wave amplitude is 1.5 mv.

The prolonged PR interval is electrocardiographic evidence of *first degree heart block* (PR interval of greater than 0.13 seconds in the dog). First degree heart block usually occurs due to a delay in the transmission of the sinoatrial impulse to the ventricular myocardium. This occurs due to a delay in the conduction velocity of the impulse as it passes through the atria, the atrio-ventricular node, the bundle of His and/or the bundle branches on its way to the Purkinje fibers. The causes of first degree heart block include:

