

spectrophotometer. Absorbance maxima were found at 539 and 568 with a slight minimum at 555 nm. Canine carboxyhemoglobin has absorption maxima at 539 and 568 nm, with a slight minimum at 554 nm. Hemoglobin has absorbance maxima at 541 and 576 with a pronounced minimum at 561 nm. As carboxyhemoglobin levels in diluted blood rise, the spectrum

increasingly resembles that of carboxyhemoglobin. **The absorbance characteristics of the blood of this dog indicated a very high concentration of carboxyhemoglobin, and hence the cause of death.**

Roy Smith, Alberta Agriculture, Animal Health Division, P.O. Box 8070, Edmonton, Alberta T6H 4P2.

Pseudotuberculosis in a black-tailed ptarmigan

A local breeder of game birds experienced an increase in mortality in his adult wild-caught black-tailed ptarmigan over a period of two weeks. Birds had been in captivity over two breeding seasons. One male ptarmigan was submitted to the Animal Health Center, Abbotsford, for necropsy. General body condition was assessed to be fair with serous atrophy of fat stores. Numerous grey firm, caseous nodules of various sizes were present throughout the lung, liver, spleen and breast muscles. Histological examination revealed multifocal, random, mature bacterial granulomas in the lung, liver, spleen and skeletal muscle, as well as the muscularis of the gizzard and the submucosal glands of the proventriculus. *Yersinia pseudotuberculosis* in pure culture was isolated from the granulomas.

Yersinia pseudotuberculosis has been isolated from many species of mammals and birds and is most commonly associated with sporadic disease. Fecal contamination of soil, food, or water serves as a source of infection for susceptible birds whose natural resistance may be compromised by inadequate nutrition, extreme weather or heavy parasitism. Young birds are especially susceptible. The organism enters through a break in the skin or mucous membranes and, following a brief period of bacteremia, establishes infective tuberculosis-like granulomas. **In cases of emaciation**

and visceral granulomata in game birds, the differential diagnoses should include avian tuberculosis, lymphoid leukosis and *Y. pseudotuberculosis*.

Victoria A. Bowes, Animal Health Centre, Province of British Columbia, Ministry of Agriculture and Fisheries, Box 100, Abbotsford, British Columbia V2S 4N8.

Cross-Canada Disease Report provides rapid publication of brief reports of disease trends or new diseases — maximum of 500 words and two references. The Report is edited but is not refereed.

Le Rapport des maladies diagnostiquées au Canada permet de publier rapidement un bref compte rendu sur l'évolution de certaines maladies ou sur l'apparition de nouvelles pathologies. Comptant au maximum 500 mots et deux références, le Rapport est corrigé, mais n'est pas expédié en relecture critique.

*Contributions are welcome and may be sent to:
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Dr. Gordon A. Chalmers
Alberta Department of Agriculture
Animal Health Division
Regional Veterinary Laboratory
P.O. Bag 3014
Lethbridge, Alberta T1J 4C7
Tel: 403-381-5190
Fax: 403-381-5766*

Erratum

Jacobs RM, Cochrane SM, Lumsden JH, Norris AM. Relationship of cerebrospinal fluid protein concentration determined by dye-binding and urinary dipstick methodologies. *Can Vet J* 1990; 31: 587-588.

Figure 1.

Scattergram showing the relationship of protein concentrations in 100 normal and abnormal canine cerebrospinal fluid samples determined by quantitative dye-binding (Ponceau S) and semi-quantitative methods (urine dipstick). The dashed line at 0.25 g protein/L represents the upper reference limit of normal canine cerebrospinal fluid.

