

WESTERN COLLEGE OF VETERINARY MEDICINE, SASKATOON, SASK.

DEPARTMENT OF VETERINARY PATHOLOGY
UNIVERSITY OF SASKATCHEWAN
PHONE 343-5671

PATHOLOGY NO. N78-3253

FINAL REPORT

DEAR DR. Presnell
ADDRESS S.A.C.

CLINIC NO.
DATE June 20, 1978
SPECIES Canine
BREED Eskimo
AGE puppies
SEX
I.D.
NO. SUBMITTED six
PORTIONS OF

OWNER W. S. Carpenter
ADDRESS P.O. Box 1032, Yellow Knife, N.W.T.

COPY TO DR.

COPY TO

HISTORY Pups kept cool and shipped to Dr. Presnell.
Five pups died acutely - found dead - suspect suffocation or exposure - one litter.
One euthanized from different litter for thymus studies for immune work.

PATHOLOGIC 1. Pulmonary atelectasis
DIAGNOSIS 2.
3. 4.
5.
6.

ETIOLOGIC DIAGNOSIS Probably suffocation

COMMENTS No indication of immunodeficiency state from morphological examination of thymus, spleen, and lymph nodes of these pups. If future cases are to be examined these tissues would be better removed and transported in formalin.

PATHOLOGIST

J.P. Orr, MRCVS

DIRECTOR

NECROPSY REPORT July 6, 1978
(SYSTEMS NOT MENTIONED HAD NO LESIONS)

Necropsy 8:30 A.M. June 21.

GROSS: The pups which died show pulmonary atelectasis and advanced autolysis. The lungs of 2 of these pups sink in water. The lung tissue of two floats and the lung tissue of the 5th shows partial floating. The thymus appears normal in every pup. Lymph nodes (mesenteric and iliac) are also readily appreciable.

HISTOPATHOLOGY: 1. Dead pups - thymus - NVL. Normal population of lymphocytes in all 5 thymuses. Iliac and mediastinal lymph nodes - severe autolysis. Primary follicle development seems normal. Also parafollicular lymphocytes are present in adequate numbers. Spleen - autolysis. There seems to be plenty of lymphocytes in the periarteriolar sheaths and diffusely throughout the spleen. It is not possible to assess follicular development due to the post mortem and freezing artifacts. 2. Euthanized pup - thymus - NVL. Normal population of lymphocytes. Spleen - NVL. Normal population of lymphocytes in periarteriolar sheaths and in malpighian corpuscles. Iliac lymph nodes - severe primary follicles are present. One large active secondary follicle present. Diffuse moderate heavy neutrophilic population.

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PATHOLOGY NO. N78-4771

FINAL REPORT

DEAR DR. Presnell
ADDRESS S.A.C.

CLINIC NO.
DATE Sept. 29, 1978
SPECIES Canine
BREED Eskimo dog
AGE 4-5 weeks
SEX
I.D.
NO. SUBMITTED two
PORTIONS OF

OWNER William Carpenter
ADDRESS Box 1032, Yellowknife, N.W.T.

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HISTORY 100+ on premises. Five have died.

Died overnight. Other deaths have been from same litter.

Housed in large fenced runs.

Ration: Special fish meal.

Vaccinated with Connaught distemper vaccine 3 days before.

Found dead.

Previous with crusting eyes and cough.

"Supposedly diagnosed by Edmonton Lab as immuno deficient & no thymus.

Last case here was normal. Previous necropsy #N78-3253.

PATHOLOGIC 1. Nonsuppurative myocarditis.
DIAGNOSIS 2. Pulmonary edema.
3. Hepatic congestion.

4. Acute heart failure.
5.
6.

ETIOLOGIC DIAGNOSIS

COMMENTS These puppies have a previously unrecognized disease of the heart which appears to be due to an infectious agent, but in spite of extensive investigation on these and other similar cases, we did not determine the cause. Similar cases have been occurring in other regions of Canada and the U.S.A.

M. A. Hayes
M. A. Hayes, D.V.M.

PATHOLOGIST

R. Reuter
R. Reuter, D.V.M.

DIRECTOR

NECROPSY REPORT January 16, 1979

GROSS: Necropsy Sept. 29, 12 noon. (SYSTEMS NOT MENTIONED HAD NO LESIONS)

Pups have similar lesions. Pup #1 ~~was~~ black and white female; pup #2 brown and white male. Pup #1 is in better condition. Tonsils are enlarged and hyperemic, lungs are voluminous, rubbery and mottled with subpleural, darker parenchymal areas. Central and peripheral lymphoid tissues are normal. HISTOPATHOLOGY: Heart: There is marked separation of cardiac myocytes, especially in the left ventricular wall. Intercellular space contains edema and enlarged spindle shaped cells - fibroblasts and reactive Anitschoff cells and a mild mononuclear lymphocytic infiltration which is focally intense with plasma cell clusters in some regions. Myocytes are variable in size, with some being large with hyperchromatic sarcoplasm with inconspicuous transverse and longitudinal striation but this may be due to the degree of autolysis. Nuclei are variable in size and staining characteristics, with some being hyperchromatic with prominent central chromatin clumps. Very few have distinct purple homogeneous large intranuclear inclusions which are rectangular to ellipsoidal in longitudinal sections. They are surrounded by a clear zone and a narrow rim of clumped chromatin on the nuclear envelope. Some bodies completely fill the nucleus. Capillaries have hypertrophied hyperchromatic endothelial cells. Lung - pronounced interstitial thickening is evidently due to reactive enlargement of alveolar epithelial cells and interstitial cells with a mild mononuclear leukocyte infiltration. Free macrophages are present in some alveoli. Liver - periarterial sinusoidal congestion and hepatocyte lipidosis. Spleen - lymphoid follicles are active. VIROLOGY: No significant isolates from lung, spleen or liver. BACTERIOLOGY: No significant findings. Pup #2-essentially identical gross & microscopic lesions were found except that autolysis was more advanced and intranuclear inclusions were more frequently found.

PHOTOS TAKEN ()

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PHONE 343-5671

PATHOLOGY NO. N78 - 4771

FINAL REPORT

DEAR DR. Presnell
ADDRESS S.A.

CLINIC NO.
DATE
SPECIES Canine
BREED
AGE
SEX
I.D.
NO. SUBMITTED
PORTIONS OF

OWNER Wm. Carpenter
ADDRESS Yellow Knife, NWT.

COPY TO DR.
COPY TO
HISTORY

ADDITIONAL REPORT:

PATHOLOGIC 1. Nonsuppurative myocarditis 4.
DIAGNOSIS 2. 5.
3. 6.

ETIOLOGIC DIAGNOSIS Canine parvovirus

COMMENTS Detailed investigations into the cause of the heart disease has lead to the identification of canine parvovirus as the causative agent. This virus also causes gastroenteritis of dogs, and has appeared as a new disease in the past 12 months.

M.A. Hayes
M.A. Hayes, D.V.M.

PATHOLOGIST E. Clark, D.V.M. *R. Reuter*

DIRECTOR

NECROPSY REPORT April 2, 1979
(SYSTEMS NOT MENTIONED HAD NO LESIONS)

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