

2016.035

SB # 953



From: Jonathan Dunnum jldunnum@unm.edu
Subject: Fw: Phoenix Zoo Reporting: Mexican Wolf #11192
Date: April 6, 2016 at 9:46 AM
To: Adrienne Raniszewski aranis@unm.edu

Here is info for Phoenix zoo wolf. Not for the ones we got today.

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From: Kristen Phair <KPhair@phoenixzoo.org>
Sent: Tuesday, April 5, 2016 1:15 PM
To: psiminski@livingdesert.org; Jonathan Dunnum
Cc: Gary West; Kara Schilling
Subject: FW: Phoenix Zoo Reporting: Mexican Wolf #11192

Dear Peter and Jon,

Please see below for the histopathology report on the Mexican wolf from the Phoenix Zoo.
Here are the gross necropsy findings from our exam:

Necropsy) Weight= 22.3 kg. Very thin body condition. Prominent lymph nodes in all areas of body noted. Abdominal surgical site intact. Moderate amount of turbid sero-hemorrhagic fluid within abdominal cavity. Multiple sections of intestinal tract appear distended with gas. Gastrotomy site appeared to be healing well and intact; pyloric region of stomach appears to be constricted/narrowed proximal to the pyloric sphincter. Thickening and distension of duodenum. Multiple regions of constriction/narrowing of jejunum and ileum both at the resection and anastomoses sites and in other non-surgical areas, multiple potential regions of adhesions between loops of intestines. GI contained liquid hemorrhagic diarrhea. Bladder empty and contracted. Prominent mesenteric and subiliac lymph nodes. No substantial subcutaneous or intrabdominal/intrathoracic fat stores noted. Spleen very small and a serosal nodule present. Lungs and kidney very pale. Prominent liver with rounded liver lobe margins.

Please let me know if you have any questions or need additional information.

Best wishes,

Kristen Phair, DVM, DACZM
Staff Veterinarian

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From: Christie Buie [mailto:ChristieBuie@zoopath.com]
Sent: Friday, March 18, 2016 5:14 PM
To: Team ACC; Denise Sistik
Subject: Phoenix Zoo Reporting: Mexican Wolf #11192

Northwest ZooPath

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Case No.: G16-1099 Obtained: 03/02, rec'd 03/07/16
Reported: 03/18/16

Dr. Kristen Phair
Phoenix Zoo
455 N. Galvin Pkwy.
Phoenix, AZ 85008-3431

Patient ID: Mexican Wolf #11192
Account #: AZ 100G, F
Telephone: (602) 273-1341
FAX #: 914-4341
E-mail: on file

HISTORY: This 10-year-old male Mexican wolf has a history of lymphoma diagnosed by surgical biopsy of the jejunum. It had developed suspected weight loss and gastrointestinal obstruction prior to the diagnosis and had received treatment. Euthanasia was performed for humane and diagnostic purposes. Necropsy identified pale pulmonary parenchyma, a mild amount of serous pericardial fluid, absence of pericardial fat, a moderate amount of hemorrhagic fluid in the abdominal cavity, a constricted region in the pylorus, rounded hepatic margins, prominent pancreas, small spleen with a serosal nodule, numerous prominent lymph nodes, gas distended small intestine, multiple constricted and thickened regions in the small intestine, hemorrhagic feces in the large intestine, contracted urinary bladder, symmetrical testes, and muscle atrophy.

CLINICAL DIAGNOSIS: Cachexia, intestinal lymphoma.

GROSS: Received in formalin are 51 tissues to 12 cm. in greatest dimension that are processed in 13 blocks following appropriate decalcification of blocks #12-13.

MICROSCOPIC: **Adipose:** Steatosis is noted multifocally in the heart and in the muscular tunics of the tongue. **Lung:** The lung has mild pneumoconiosis, some mild edema, and mild pleural fibrosis. **Blood vessels:** The great vessels have mild intimal hypertrophy, and the spleen has some arteriosclerosis with hematoidin in the vessel walls. **Spleen:** The spleen contains a hemangiosarcoma in early stages of development with associated hemorrhage and necrosis. **Liver:** The portal tracts have some mild cholestasis, and hepatocytes have mild vacuolar change. **Kidney:** Mild sclerotic change is in some of the glomeruli and in the interstitium. **Peritoneum:** Some of the serosal surfaces of the viscera, especially liver, are coated in fibrin, suppurative inflammation, and gut contents. **Bone marrow:** Mild myeloid hyperplasia is noted. **Lymph node:** Three lymph nodes have anthracosis. One lymph node has some atypical lymphoid cells in the medullary sinuses. **Skeletal muscle:** Mild rhabdomyolysis is in two sections of skeletal muscle. **Adrenal:** Some mild fibrosis is at the corticomedullary interface. **Prostate:** The prostate has possible mild hyperplasia of the glandular component. **Intestine:** Several sections of the small intestine have slightly increased numbers of lymphocytes and plasma cells in the lamina propria with varying degrees of crypt ectasia or crypt abscesses. One section of the intestine has a transmural lymphoid malignancy. The tumor is comprised of sheets of lymphoblasts associated with necrosis, and the tumor effaces the mucosal architecture and extends to the serosal surface. Transmural fibroplasia is associated with granulation tissue formation and intestinal adhesions to the mesentery in one section of the small intestine. **Stomach:** Transmural fibroplasia is associated with ulceration of the mucosa of the fundus. **Skin:** Mild atrophy is in the

epidermis and adnexal structures. The following tissues are histologically within normal limits: penis, testicle (active spermatogenesis), pancreas, urinary bladder, two lymph nodes, gallbladder, pituitary, colon, thyroid, and brain.

Intestinal lymphoma.
Mild to moderate, chronic enteritis.

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G16-1099, Mexican Wolf #11192
Phoenix Zoo

Transmural scarring, stomach and small intestine (biopsy sites).
Hemangiosarcoma, spleen.

COMMENT: Histologic findings corroborate the clinical observations regarding the lymphoid malignancy in the intestine, which was localized to one section. There are also a few atypical lymphoid cells in one of the mesenteric lymph nodes. Most of the remaining sections of the intestine have chronic inflammation resembling the inflammatory bowel disease that is commonly seen in wolves. It is unclear if this condition is related to the lymphoid malignancy or if they are unrelated processes. This wolf also had a hemangiosarcoma in early stage of development in the spleen. Considered incidental at the time of necropsy, this lesion would have become more of a substantial clinical problem had the wolf lived much longer. I believe we have several hemangiosarcomas of the spleen on file in wolves (similar to dogs). Most of the remaining changes in this case are attributed to aging or associated with the biopsy procedure. This wolf had foreign body peritonitis with gut contents in the lesion, possibly due to the transmural lymphoid malignancy or leakage from a biopsy site. It may have been in suboptimal nutritional status but was not emaciated. I am assuming that this animal had been treated with glucocorticoids based on the mild atrophy of the epidermis and adnexal structures in the skin specimen.

Michael M. Garner, DVM, Dipl. ACVP

MMG/hc

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NZP Code: M, 8, 9f, 14; intestinal lymphoma, chronic enteritis (inflammatory bowel disease-like), hemangiosarcoma, euthanasia.