

2015-035

MEXICAN WOLF NECROPSY PROTOCOL

INSTITUTION/OWNER Wolf Conservation Center
ADDRESS PO Box 421 / 7 Buck Run
South Salem, NJ 10590

CANID SPECIES Mexican Wolf ANIMAL ISIS ID # F810
STUD BOOK # F810 SEX F
BIRTH DATE/AGE 4/23/03 WEIGHT #63 lbs

REPRODUCTIVE HISTORY:

SHOWN BEHAVIORAL ESTRUS? Yes
EVER BRED? Yes
PRODUCED PUPS? No
EVER HOUSED WITH OPPOSITE SEX? Yes

DATE OF DEATH 3/10/15 DATE OF NECROPSY 3/10/15

HISTORY: (Briefly summarize clinical signs, circumstances of death.)

Was found dead. showed no prior clinical signs. Necropsy yielded closed pyometra.

Please have your pathologist perform a histopathology on the tissues. Then send the gross examination worksheets and pathologists report to Dr. Linda Munson, Mexican Wolf SSP[®] Pathology Advisor; University of California; Department VM-PMI; 1126 Haring Hall, 1 Shields Ave.; Davis, CA 95616; PH: 916-754-7567; Fax: 916-752-3329. Copies of the completed necropsy reports should be faxed to the SSP[®] Veterinary Advisor Dr. Randi Meyerson at The Toledo Zoo; P.O. Box 140130; Toledo, Ohio, U.S.A., 43609; PH: 419-385-5721, ext. 2052; FX: 419-385-6935; Email: randi@toledozoo.org.

Animal ISIS ID# F810

**GROSS EXAMINATION
WORKSHEET**

PROSECTOR: Dr. Charlie Duffy

GENERAL CONDITION: (Nutritional condition, physical condition)
NEONATES: Examine for malformations (cleft palate, deformed limbs, etc.)

SKIN: (Including pinna, feet)

Normal Coat + Condition

MUSCULOSKELETAL SYSTEM: (Bones, joints, muscles)

Normal

BODY CAVITIES: (Fat stores, abnormal fluids)

NEONATES: Assess hydration (tissue moistness)

Moderate FAT STORES + Normal (ABDOMINAL) FLUID

HEMOLYMPHATIC: (Spleen, lymph nodes, thymus)

*Spleen Grossly Normal Some Very Small 5-7mm Nodules
10-15*

Lymph nodes Normal

Thymus Not Found

RESPIRATORY SYSTEM: (Nasal cavity, larynx, trachea, lungs, regional lymph nodes)

NEONATES: Determine if breathing occurred (Do the lungs float in formalin?)

Nasal Larynx Trachea Lungs All Normal

CARDIOVASCULAR SYSTEM: (Heart, pericardium, great vessels)

Heart Normal Pericardium + Vessels Normal

DIGESTIVE SYSTEM: (Mouth, teeth, esophagus, stomach, intestines, liver, pancreas, mesenteric lymph nodes)

NEONATES: Is milk present in stomach?

Mouth Normal Esophagus Normal Stomach-Intestines
all Normal Liver + Pancreas Normal + Kidneys Normal

URINARY SYSTEM: (Kidneys, ureters, urinary bladder, urethra)

Kidneys Ureters Bladder all Normal

REPRODUCTIVE SYSTEM: (Testis/ovary, uterus, vagina, penis, prepuce, prostate, mammary glands, placenta)

Large pus filled uterus ovaries left Small (No obvious CL)
Right Nodule multiple CL

ENDOCRINE SYSTEM: (Adrenals, thyroid, parathyroids, pituitary)

All Normal

NERVOUS SYSTEM: (Brain, spinal cord, peripheral nerves)

Not recovered

SENSORY ORGANS: (Eyes, ears)

Normal

PRELIMINARY DIAGNOSES:

Pyometra

Pound Ridge Veterinary Center
ANTECH Acct No. 4315

Accession No. NYBB05740633
Received 03/12/2015
Reported 03/19/2015 07:22 AM

Doctor NOT STATED

Owner	Pet Name	Species	Breed	Sex	Pet Age	Chart#
WOLFCENTER	F810	Canine		F	11Y	N

Test Requested	Results	Reference Range	Units
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HISTOPATHOLOGY, FULL WRITTEN REPORT

History:

Complete Necropsy. Cause of death - pyometra.
1. Bladder. 2. Skin. 3. Lymph Node. 4. Small Intestine. 5. Liver. 6. Stomach. 7. Bone Marrow. 8. Trachea. 9. Right Kidney. 10. Colon. 11. Adrenal. 12. Skeletal Muscle. 13. Lung. 14. Heart. 15. Spleen. 16. Pancreas. 17. Thyroid.

Received: (17) Necropsy tissues.

Biopsy

SOURCE:
Necropsy.

DESCRIPTION/MICROSCOPIC FINDINGS/COMMENTS:

Microscopic Description:

A necropsy wedge biopsies were received for histopathology.
1. COLON: Small numbers of lymphocytes and plasma cells infiltrate the mucosa, mildly widening the space between colonic glands. The lining epithelium is autolyzed, and there are no abnormalities within the submucosa, muscularis, and serosa.

2. LUNG: There are small areas of atelectasis that are characterized by alveolar collapse. Blood vessels throughout the pulmonary parenchyma are congested. There are no abnormalities within the bronchioles.

3. SPLEEN: The red pulp contains megakaryocytes and erythroid and myeloid precursors. There are scattered hemosiderophages.

4. BONE MARROW: The marrow is hypercellular for an animal this age. There is a predominance of myeloid precursors.

5. KIDNEY: There are scattered small infiltrates of lymphocytes and plasma cells within the cortex. The glomeruli are mildly expanded by deposition of amorphous eosinophilic material.

6. SMALL INTESTINE: There is a mild increase in the number of lymphocytes and plasma cells within the lamina propria. They mildly expand the width of villar tips. No other abnormalities are noted.

7. LIVER: Small numbers of lymphocytes and plasma cells surround central veins and infiltrate portal tracts. Toxic neutrophils are present within the sinusoids, and form few small microabscesses.

8. ADRENAL GLAND, SKELETAL MUSCLE, HEART, PANCREAS, THYROID GLAND, URINARY BLADDER, MAMMARY GLAND, TRACHEA, STOMACH, & LYMPH NODE: No abnormalities are noted.

Microscopic Findings:

1. MILD TO MODERATE LYMPHOPLASMACYTIC COLITIS (LARGE INTESTINE)

Accession No.
NYBB05740633

Doctor
NOT STATED

Owner
WOLFCENTER

Pet Name
F810

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2. MILD ATELECTASIS (LUNG)
3. EXTRAMEDULLARY HEMATOPOIESIS AND HEMOSIDEROSIS (SPLEEN)
4. HYPERCELLULARITY WITH MYELOID HYPERPLASIA (BONE MARROW)
5. MILD MEMBRANOUS GLOMERULONEPHROPATHY AND MILD LYMPHOPLASMACYTIC INTERSTITIAL NEPHRITIS (KIDNEY)
6. MILD TO MODERATE LYMPHOPLASMACYTIC ENTERITIS (SMALL INTESTINE)
7. MILD LYMPHOPLASMACYTIC CENTRILOBULAR AND PORTAL HEPATITIS WITH SINUSOIDAL TOXIC NEUTROPHILIA AND FEW MICROABSCESSES (LIVER)
8. WITHIN NORMAL LIMITS (X 11)

Comment:

1. The colon is mildly inflamed. Given that the small intestine is also inflamed, some possible causes include parasitism, food allergy, inflammatory bowel disease, and infection.

2. The atelectasis in the lung is mild and likely represents an agonal change.

3. The changes in the stomach are common incidental findings.

4. The hypercellularity of the marrow and the presence of increased amount of myeloid precursors are likely secondary to the presence of the pyometra.

5. Membranous glomerulonephritis can be associated with chronic inflammatory lesions, therefore, I feel the glomerular disease in this case is also the result of the pyometra. The interstitial inflammation is suggestive of possible prior ascending pyelonephritis.

6. The small intestine is inflamed, as is the colon.

7. There is a nonspecific reactive hepatitis within the liver. Nonspecific reactive hepatitis is seen when there is inflammation elsewhere within the abdominal cavity. The toxic neutrophils and microabscesses are also likely caused by the pyometra.

8. The remaining tissues are all microscopically normal. If you have questions or concerns about this case, I can be reached via telephone (410-527-0326) and email (tiffany.scanlon@antechmail.com).

PATHOLOGIST:

Tiffany Scanlon VMD, DACVP

AZA CONTRACEPTIVE PATHOLOGY SURVEY
If no information is available please indicate so in the spaces provided

Submitting Veterinarian Dr. Charlie Doffy
 Institution: Wolf Conservation Center
 Address: PO Box 421 / 7 Buck Run Phone# (914) 263-2393 x2
South Salem NY 10590 E-mail rebecca@mywolf.org
 Species: Mexican Wolf Sex: M F Body weight (kg): 28.5
 SB# 810 Local ID: F810 House Name: F810
 Date of birth (D/M/Y) 4/23/03 Date tract was obtained (D/M/Y) 10/1
 Cause of death/ indication for spay/castration Pyometra

Has this animal spent its entire reproductive life at your zoo? Y N

For females, according to the animal's record:

Did this animal show signs of estrus while treated? Y N Was breeding ever attempted? Y N

Dates of pregnancies, if any: None

CONTRACEPTIVE HISTORY

Never contracepted

If more space is needed, please use the back

Product	Dose (g) or # of Implants	Animal weight (kg)	Date implanted or administered	Date removed

OTHER PROBLEMS THAT MAY HAVE AFFECTED REPRODUCTION? (use the back if needed)

Please send tissues and form to: **Dr. Dalen Agnew**
 Attn: Histo Research; Diagnostic Center for Population and Animal Health; 4125 Beaumont Rd.
 Lansing, MI USA 48910-8104 Phone: 517-353-1683.

Questions: agnewd@depah.msu.edu or anneke_moresco@hotmail.com