

**ZOOLOGICAL PATHOLOGY PROGRAM
STRANDED CETACEAN NECROPSY REPORT**

Field ID: ECWR040711-11
Additional Identifier:
ZPP Accession Number: 12-08Sf
Species: *Stenella frontalis*
Strand Date: 04/07/2011
Strand Location: Navarre Beach, Florida
Sex: F
Age Class: Adult
Necropsy Date: 04/08/2011
Condition code: 2
Total Length: 207 cm
Weight:
Blubber Depth: 1 cm dorsal
Body Condition:

Gross Necropsy: Report on file. Gross findings include (from report):

Mammary glands are large and have milk present.

Yellow fluid seeped out of body. Uterus was big and flaccid. Left ovary had a tumor or some kind of mass. Large quantity of urine in urinary bladder. Large amount of bile present.

Mesenteric lymph nodes are enlarged. Extra tissue or vessels noted around the liver.

Slides/Tissues Received: 13 regular slides

Microscopic Findings:

Slide 1:

Mediastinal lymph node: There is marked lymphoid hyperplasia and moderate congestion.

Slide 2:

Mesenteric lymph node: No significant findings (NSF).

Slide 3:

Pituitary gland: NSF

Slide 4:

Adrenal gland: Within the cortex are multiple small nodules comprised of large slightly disorganized cortical cells. Medullary cells diffusely have light brown granular cytoplasm (presumed normal).

Slide 5:

Ovary: There is a large degenerating CL consisting of scattered luteinized cells, hyalinized material, bands of fibrous connective tissue and few scattered lymphocytes. There is a central cystic cavity.

Slide 6:

Spleen: There are many medium sized lymphoid follicles in the white pulp. Splenic arterioles have thick hyalinized walls.

Liver: Portal triads are surrounded by small to moderate amounts of fibrous connective tissue, lymphocytes and plasma cells. There are scattered macrophages with dark brown-black pigment within portal triads and similar free scattered pigment. Some central veins are also surrounded by lymphocytes and plasma cells. Bile canaliculi are often widened and sometimes have brown granular plugs (bile stasis). Hepatocytes contain small to moderate amounts of golden brown pigment.

Slide 7:

Thyroid gland: Follicular epithelial cells have abundant vacuolated cytoplasm.

Urinary bladder: NSF

Diaphragm: NSF

Lymph node: NSF

Kidney: Multifocally the interstitium contains few areas of mild fibrosis and small numbers of lymphocytes and plasma cells. Moderate numbers of tubules especially at the corticomedullary junction are mild to moderately ectatic, lined by few attenuated epithelial cells and contain pale to bright eosinophilic fluid (protein). Multifocally glomeruli have small segmental areas in which mesangium is mildly thickened and hypercellular.

Slide 8:

Small intestine: NSF

Heart: Within a small area of the left ventricle blood vessels are surrounded by small amounts of fibrous connective tissue that extends out into the myocardium surrounding myocytes.

Slide 9:

Colon: Multifocally to segmentally the lamina propria contains nodular accumulations of pale eosinophilic, smudgy amorphous material (presumed amyloid) that compresses adjacent mucosal epithelial cells.

Trachea: NSF

Tongue: NSF

Great vessel: Segmentally the tunica medial is pale eosinophilic, lacks detail and elastin fibers are focally separated by smudgy eosinophilic material (necrosis). Surrounding and multifocally

scattered within the tunica intima, media and adventitia are moderately sized aggregates of lymphocytes, plasma cells, and few neutrophils and macrophages that often obscure elastin fibers. Multifocally nodular to villous intimal projections with underlying lymphocytes and plasma cells extend into the vessel lumen. Endothelium is plump and reactive.

Slide 10:

Skin: NSF

Slide 11:

Brain stem: Neurons contain a moderate to large amount of lipofuscin.

Presumed pancreas: NSF – severe autolysis

Slide 12:

Cerebellum: Neurons contain a moderate to large amount of lipofuscin.

Slide 13:

Cerebrum: Neurons contain a moderate to large amount of lipofuscin. Small blood vessels throughout the cerebrum are often surrounded by small numbers of macrophages with golden brown to yellow pigment.

Final Diagnoses:

1. Liver: Moderate multifocal periportal lymphoplasmacytic hepatitis and fibrosis with trematode pigment accumulation
2. Liver: Moderate bile stasis and hemosiderosis
3. Great vessel: Focal necrosis and moderate segmental lymphoplasmacytic arteritis
4. Kidney: Mild multifocal interstitial fibrosis, interstitial nephritis, tubule dilation with protein accumulation, and segmental membranoproliferative glomerulonephritis
5. Colon: Segmental mucosal amyloidosis
6. Adrenal glands: Mild nodular cortical hyperplasia
7. Brain: Marked neuronal lipofuscinosis
8. Mediastinal lymph node: Marked lymphoid hyperplasia
9. Heart: Mild focal interstitial fibrosis

Ancillary Test Results:

Bacteriology report on file.

Comments:

Definitive cause of stranding and death was not found on histologic evaluation. Hepatic lesions correspond to the large amount of bile noted on gross examination and the top differential for these lesions is chronic biliary trematode infection. Some degree of hepatobiliary disease may have been clinically significant in this animal. The other described lesions were all regarded as age related changes. The large amount of lipofuscin in neurons indicates that this was an older animal. The vascular necrosis and inflammation was an interesting finding and is most consistent with a degenerative process. No infectious organisms were identified in the affected vessel.

The mass noted in the ovary on gross examination was histologically consistent with a degenerating corpus luteum. This type of degeneration occurs postpartum. This finding along with the gross evaluation of the mammary glands and uterus indicates that this female had recently given birth.

Reported By:

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