

**PATHOLOGY CONSULTATION REPORT**  
**University of Florida, Aquatic Animal Health**

**Marine Animal Disease Laboratory**  
**University of Florida**  
**College of Veterinary Medicine**  
**471 Mowry Rd / Building 1379**  
**Gainesville, FL 32611**  
**352-294-4098**

**Lab Case # NMFS11-00246**

**Histologic Examination**

<b>Animal #:</b> AMF2011050501	<b>Agency Case #:</b> Diagnostic
<b>City / County:</b> Unknown <b>State:</b> FL	<b>Pathology Acc #:</b> NMFS11-00246
<b>Species:</b> <i>Chelonia mydas</i>	<b>Patient name/#:</b> Libby
<b>Sex:</b> Male	<b>Age/Size Class:</b> Immature

<b>Submitting Institution:</b> Georgia Sea Turtle Center	<b>Contact Information:</b> 214 Stable Road, Jekyll Island, GA 31525, 912-635-4070, tnorton@jekyllisland.com
<b>Contact Person:</b> Terry Norton	<b>Copy To:</b>

**Clinical Summary / History:**

See submission form and gross necropsy report. Found in dredge with minor wounds; suspected saltwater aspiration. Necropsy findings included pericardial hemorrhage and proliferative, caseous lesion in proximal trachea.

**Samples Received:**

Received is a single specimen jar containing multiple fixed tissues. Included is a section of trachea in which the mucosa is disrupted by a raised, ulcerated mass. Representative sections of all tissues are placed into cassettes 1 through 9.

**Microscopic Examination:**

T1: lungs; T2: heart, major arteries; T3: pancreas, adrenal gland, spleen, lung; T4: kidney; T5: liver, testis, skeletal muscle; T6: stomach, small intestine, colon; T7: stomach, colon; T8: esophagus, thyroid gland; T9: trachea, pharynx.

**Select Histopathological Description:**

T9. Trachea: The tracheal cartilage and submucosa are effaced by granulomatous inflammation, which projects into the lumen as an ulcerated mass. The granulomas are comprised of central aggregates of necrotic debris surrounded by palisading multinucleated giant cells. Numerous lymphocytes infiltrate the surrounding tissue. Narrow, filamentous, septate fungal hyphae are present within the granulomas.  
T1. Lungs: Some faveoli are flooded by proteinaceous fluid (edema). In addition, moderate numbers of pigmented macrophages, lymphocytes, and fewer granulocytes focally infiltrate a small area in a section in T3. The associated epithelium is hyperplastic.  
Arteries, multiple: The subintima of multiple arteries is thickened and infiltrated by small numbers of lymphocytes and granulocytes.  
Multiple tissues: The interstitium of the lung, kidney, adrenal gland, and other tissues are expanded by a mild, multifocal lymphohistiocytic infiltrate. Small numbers of heterophils and eosinophils also are present. Rare mitotic figures are observed.

**Diagnoses:**

**Histologic Examination**

1. Trachea: Severe, chronic, granulomatous tracheitis with intralesional fungal hyphae
2. Lungs: Pulmonary edema (see comment)
3. Lungs: Mild, focal chronic pneumonia
4. Multiple sites: Mild, multifocal lymphohistiocytic infiltrate
5. Arteries, multiple: Mild, chronic endarteritis
6. Heart: Mild, focal, chronic endocarditis
- 7.. Small intestine: Multifocal granuloma formation with intralesional spirorchiid ova (small numbers)
8. Liver: Diffuse vacuolar change (lipid type) and hepatocellular pigment accumulation
9. Spleen: Granulocytosis

**Examination Conclusions and Comments:**

Not included in the histological diagnoses are the atrial rupture and pericardial hemorrhage noted at gross necropsy, which are relevant to cause of death. The trachea mass was comprised of granulomatous inflammation due to localized fungal infection. Specific identification of the fungus can be attempted from frozen material, if available. The diagnosis of pulmonary edema considers both the gross and histological findings and may reflect terminal aspiration. Other histological findings were relatively minor and included very chronic endocarditis and endarteritis that were consistent with lesions caused by spirorchiid trematodes. Only small numbers of spirorchiid ova were observed in the enteric submucosa. Also, there were foci of mild lymphohistiocytic infiltrates present in multiple organs that are of unknown cause and significance. This infiltrate may reflect some response to generalized antigenic stimulation. Please contact me if you have any questions or concerns.

**Prepared By:**

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Date