

**ZOOLOGICAL PATHOLOGY PROGRAM  
STRANDED CETACEAN NECROPSY REPORT**

**Field ID:** CED20110502-LA001  
**Additional Identifier:** LA-540  
**ZPP Accession Number:** 11-076Tt  
**Species:** *Tursiops truncatus*  
**Strand Date:** 05-02-11  
**Strand Location:** Jefferson, LA  
**Sex:** male  
**Age Class:** neonate  
**Necropsy Date:** 05-02-11  
**Condition code:** 2  
**Total Length:** 112 cm  
**Weight:**  
**Blubber Depth:**  
**Body Condition:**

**Gross Necropsy:** No gross report or necropsy notes available at time of histologic evaluation.

**Slides/Tissues Received:** 27 regular slides, listed on trim sheet as two sets (presumed duplicate sets) 1A (slides 1-14) and 1B (slides 15-27).

**Microscopic Findings:** Autolysis is severe, impeding interpretation and even organ identification in some instances; also widespread colonization by large numbers of postmortem bacteria.

Slide 1:

Colonic lymph node: No Significant Findings (NSF)

Adrenal (presumed): NSF

Skeletal muscle: NSF

Slide 2:

Kidney: NSF

Skeletal muscle: NSF

Spleen (presumed): NSF

Slide 3:

Heart: NSF

Skeletal muscle: NSF

Slide 4:

Skeletal muscle: NSF

Heart: NSF

Skeletal muscle with adjacent lymph node: NSF

Luminal organ, presumed GIT: NSF (no mucosa, only muscularis and submucosa)

Slide 5:

Tongue (presumed): NSF

Luminal organ, presumed GIT: NSF (no mucosa, only muscularis and submucosa)

Heart (atrium): NSF

Great vessels (2) [aorta and pulmonary artery, presumed]: NSF

Slide 6:

Trachea: NSF

Esophagus and adjacent lymph node: NSF

Urinary bladder: an adjacent umbilical artery has a large lumen (not contracted).

Slide 7:

Adrenal: NSF

Luminal organ (3), presumed GIT: NSF (no mucosa, only muscularis and submucosa)

Slide 8:

Testis & Epididymis: NSF

Intestine: NSF

Slide 9:

Pancreas: NSF

Liver: NSF

Slide 10:

Diaphragm: NSF

Skeletal muscle: NSF

Lung: Diffusely the lung is moderately hypercellular with abundant cells and or cell debris in alveoli and bronchioles. Most cells are round or polygonal. Few round cells are recognizable as neutrophils. Variable numbers of intra-alveolar amniotic squames are also noted. Most alveoli are collapsed (atelectasis) though clusters are partially inflated (possibly solely due to postmortem gas production). One bronchial lumen contains several large adult (metastrongyle) nematodes.

Slide 11:

Glandular (fundic) stomach: NSF

Slide 12:

Esophagus: NSF

Luminal organ (2), presumed GIT: NSF (no mucosa, only muscularis and submucosa)

Penis: NSF

Slide 13:

Skin with blubber and skeletal muscle: NSF

Slide 14:

Skin with blubber, presumptive umbilicus region: NSF

Slide 15:

Lymph node: NSF

Skeletal muscle: NSF

Unknown tissue: NSF

Slide 16:

Spleen (2): NSF

Kidney: NSF

Slide 17:

Tongue (no mucosa): NSF

Heart: NSF

Luminal organ, presumed GIT: NSF (no mucosa, only muscularis and submucosa)

Slide 18:

Lung (3): As for lung on slide 10. One bronchiole contains a large aggregate of golden brown angular material (meconium, presumptive). Additionally, a large caliber pulmonary artery is moderately dilated and 95% occluded by a luminal aggregate of fibrin, proteinic material, and

enmeshed erythrocytes and neutrophils (thrombus). The thrombus is multifocally adherent to the endothelium

Slide 19:

Pancreas: NSF

Liver: NSF

Slide 20:

Heart: NSF

Skeletal muscle: NSF

Slide 21:

Trachea: NSF

Great vessels: NSF

Slide 22:

Esophagus: NSF

Non-glandular stomach: NSF

Lymph node: NSF

Slide 23:

Testis & Epididymis: NSF

Urinary bladder: Umbilical artery as for slide 6.

Adrenal: NSF

Slide 24:

Intestine: Few scattered crypts are mildly dilated and contain luminal accumulations of sloughed cells.

Slide 25:

Glandular (fundic) stomach: NSF

Slide 26:

Skin with blubber: NSF

Slide 27:

Skin with blubber, presumed umbilical region: NSF

**Final Diagnoses:**

1. Stillbirth or late term abortion
2. Fetal atelectasis
3. Mild in-utero pneumonia, rule out bacterial
4. Moderate, focal, pulmonary arterial thrombosis
5. Fetal distress: intrapulmonary squames and rare meconium
6. Minimal, multifocal, bronchial nematode infection (lungworm; *Halocercus spp.*, presumptive)

**Comments:**

Atelectasis was noted histologically, indicating this animal never breathed air. A 112 cm total length was near the 115 cm expected for term fetuses and this was either a late-term fetal death or stillbirth. The open (uncontracted) umbilical artery suggested vascular-hemodynamic changes coincident with parturition were not at play and in-utero death seemed more plausible than death at/during parturition. At least somewhat elevated intra-alveolar squames were suggestive of fetal distress and the rare meconium lent further support.

Pneumonia was present, probably moderate, though autolysis impeded more refined assessment of severity; given other findings, pneumonia would have been established in utero, and may have reflected inflammation or infection of the fetal membranes/placenta as well. A bacterial etiology seemed most probable and *Brucella* spp. remains an important differential given findings in other fetus/neonate submissions.

Adult lungworm infection has been documented in several fetal/neonatal dolphins. Possibly the pulmonary arterial thrombus was related (larval migration).

Reported By:

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