

**ZOOLOGICAL PATHOLOGY PROGRAM
STRANDED CETACEAN NECROPSY REPORT**

Field ID: CES20110218-LA001
Additional Identifier: LA453
ZPP Accession Number: 11-01Tt
Species: *Tursiops truncatus*
Strand Date: 2/18/2011
Strand Location: Grand Terre, Louisiana
Sex: Male
Age Class: fetus
Necropsy Date: 18Feb2011 by Cara Field, DVM
Condition code: 2
Total Length: 102
Weight: 15 kg (estimated)
Blubber Depth: 8mm dorsal
Body Condition: 2/5

Gross Necropsy: (On file)

Lungs (per necropsy report): Do not appear to have ever inflated and sank in formalin.

Slides/Tissues Received: 19 regular slides

Microscopic Findings:

Blood vessels in multiple tissue contain approximately 2-4 micron oval to elongate basophilic yeasts and large, bacterial rods (presumed post mortem overgrowth).

Slide 1:

Urinary bladder/umbilical arteries: The lumen of the urinary bladder and umbilical arteries contain small numbers of 2-4 micron basophilic yeasts.

Tongue: No significant findings (NSF)

Penis: NSF

Skeletal muscle: NSF

Slide 2:

Skin, fin: NSF

Skin, blubber: There are small numbers of lymphocytes and histiocytes within and surrounding superficial dermal blood vessels, primarily veins.

Slide 3:

Cecum/colon: NSF

Intestine: NSF

Lymph node: NSF

Slide 4:

Esophagus: NSF

Trachea: There is mild to moderate vascular congestion, dilation, and minimal perivascular hemorrhage within the submucosa.

Slide 5:

Lung: The lung is diffusely atelectatic. Alveolar spaces and bronchioles contain large numbers of amniotic squamous cells and small amounts of brown globular debris (meconium). Material is surrounded by moderate numbers of macrophages that sometimes extend into alveolar septae. In some areas amniotic squamous cells are also surrounded by small numbers of neutrophils. There are small numbers of 2-5 micron oval to elongate basophilic yeasts mixed with the inflammatory cells and squamous cells in some areas.

Slide 6:

Kidney: NSF

Slide 7:

Testes: There is moderate congestion and mild multifocal hemorrhage within the interstitium.

Slide 8:

Aorta: NSF

Lymph node: NSF

Pancreas: NSF

Slide 9:

Lung: See description under slide 5

Epididymis: NSF

Skeletal muscle: NSF

Slide 10:

Diaphragm: NSF

Lymph node: There are small numbers of histiocytes within sinuses

Adrenal gland: The cortex is slightly thinner than expected.

Slide 11:

Heart: NSF

Slide 12:

Heart: There is decreased amounts of epicardial adipose tissue

Slide 13:

Bone and marrow: Marrow spaces contain scant adipose tissue.

Slide 14-18:

Brain (cerebrum, cerebellum, brain stem): NSF

Slide 19:

Eye: NSF

Final Diagnoses:

- 1) Lung: Marked diffuse atelectasis and moderate to marked diffuse histiocytic and neutrophilic pneumonia with numerous amniotic squamous cells
- 2) Body as a whole: Thin body condition (gross and histologic diagnoses)
- 3) Skin: Minimal multifocal superficial perivascular dermatitis

Ancillary Test Results:

None available at the time of analysis.

Comments:

The marked diffuse atelectasis noted in the lungs indicates that this dolphin fetus did not take a breath after being born and was, therefore, stillborn. Additionally there was inflammation throughout the lungs, aspirated amniotic squamous cells and small amounts of aspirated meconium. Taken together, these findings are consistent with infection of the amniotic fluid in utero and a fetal stress response. When stressed, either in utero or during the birthing process, fetuses can aspirate abnormally large amounts of amniotic fluid containing amniotic squamous cells. If the amniotic fluid is infected, an inflammatory reaction will occur in the fetus in utero, such as the case in this dolphin fetus. The inflammation was extensive and severe enough to indicate that it had been present for at least 24 hours prior to fetal death. Though yeast organisms were noted within the lung, similar yeasts and bacteria were found within blood vessels throughout the body without an inflammatory response making distinction between a primary infection and post mortem bacterial and yeast overgrowth impossible.

Both on gross necropsy and histologically this fetus had thinner adipose tissue and blubber than would be expected and therefore, a diagnosis of thin body condition was given.

The significance and cause of the perivascular dermatitis is not known, however, inflammation was minimal.

Though it is impossible to accurately determine fetal age histologically, all examined tissues appeared to be of appropriate maturity for a near to full term fetus.

Reported By:

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