

**ZOOLOGICAL PATHOLOGY PROGRAM
STRANDED CETACEAN NECROPSY REPORT**

Field ID: MCT20101203-LA001
Additional Identifier: LA436
ZPP Accession Number: 11-04Tt
Species: *Tursiops truncatus*
Strand Date: 12/3/2010
Strand Location:
Sex: Female
Age Class: Fetus
Necropsy Date:
Condition code: 3
Total Length: 81 cm
Weight:
Blubber Depth:
Body Condition:

Gross Necropsy: Gross report not available at the time of histologic examination.

Slides/Tissues Received: 11 slides

Microscopic Findings:

Multiple tissues contain clusters of large bacterial rods without inflammation, consistent with post mortem bacterial overgrowth.

Slide 1:

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 and neutrophils that sometimes extend into alveolar septae. Some macrophages contain brown material. In multifocal areas septae are obscured by loose nodular accumulations of immature leukocytes and macrophages.

Inflammatory cells within alveolar spaces are sometimes mixed with large bacilli and/or shorter, thinner bacterial rods.

Spleen: The red pulp contains many erythroid and myeloid precursors and megakaryocytes (extramedullary hematopoiesis). There are no lymphoid follicles.

Slide 2:

Kidney: There are fetal glomeruli in the cortex some of which abut the capsular surface.

Stomach: A few glands are dilated and contain sloughed cells.

Slide 3:

Heart: No significant findings (NSF)

Slide 4:

Adrenal glands: NSF

Lymph node: NSF

Liver: There are many small clusters of erythroid and myeloid precursors (extramedullary hematopoiesis) in sinuses.

Slide 5:

Tongue: NSF

Slide 6:

Aorta: NSF

Trachea: NSF

Presumed oral mucosa and skeletal muscle (site unidentifiable): NSF

Slide 7:

Lymph node: NSF

Thyroid gland (presumptive due to autolysis): NSF

Spleen: See description for slide 1

Slide 8:

Aorta: NSF

Colon: NSF

Small intestine: NSF

Esophagus: NSF

Urinary bladder: NSF

Slide 9:

Urinary bladder: NSF

Ovary: NSF

Uterus: NSF

Cervix: NSF

Slide 10:

Mucosa: NSF

Stomach or esophagus: NSF

Slide 11:

Intestine: NSF

Thymus: NSF

Final Diagnoses:

1. Lung: Marked diffuse atelectasis and histiocytic and neutrophilic pneumonia with aspirated amniotic squamous cells and meconium
2. Spleen and liver: Extramedullary hematopoiesis

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 or aborted. 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 fetal lung 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 bacteria were noted within the lung, similar bacteria were found within blood vessels and tissues throughout the body without an inflammatory response making distinction between a primary infection and post mortem bacterial overgrowth impossible.

Extramedullary hematopoiesis is normally found in fetuses but the amount noted in this fetus is highly suggestive that this animal was not a mature, full-term fetus at the time of death. The morphologic appearance of the kidney also suggests that this animal was not a full-term mature fetus.

Some changes may have been obscured by the moderate autolysis present in all organs.

Reported By:

Kathleen M. Colegrove-Calvey DVM, PhD, Dip ACVP
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