

Necropsy Report
Killer Whale (Orcinus-orca) Kona II & fetus
Age 17 yrs — SeaWorld of Florida

Name: Kona II (female) (aka Kona 2) and fetus

Species: Killer Whale (Orcinus orca)

Source: wild capture, 10-12-1977, Ingolfshofdi coast, Iceland, age: est. 2 yrs

Deceased: 10-15-1987, SeaWorld of Florida, age: est. 12 yrs

Reported cause of death (per NMFS MMIR data): Pulmonary Abscession

Necropsy info:

Diagnoses: Dr's. Cornell, Lynch, Walsh, McBain, Dalton (1987):

Open -. Difficult to connect lung problem with clinical signs. May have combination of problems.

- 1) Chronic lung abcessation
- 2) Possible nervous disorder - circling and left blow flap paralysis - possibly related to vascular accident

Conclusions: Cornell, Lynch, Walsh, McBain, Dalton (1987): (after histology & clinical pathology review)

This whale originally showed possible nervous system abnormalities which were partially verified by the histologic pictures of what appeared to be facial nerve. The presence of large chronic abcesses in the lung is difficult to connect to the clinical signs observed. A glomerulonephropathy noted on histology has been associated with immune mediated disease which may have an interesting relationship to the neuritis. A specific cause of death for the animal is not apparent. While the lung abcesses could become a source of chronic infection it appears that they were present for an extended period. The possibility of an immune related problem can not be ruled out at this point.

Note: Gross examination of reproductive system found 6 cm fetus, right horn.

Notes: Prior to reforms of the Marine Mammal Protection Act (MMPA) in 1994, holders of marine mammals for public display were required to submit necropsy reports (animal autopsy reports) for deceased animals, making the documents available to the public and scientific community. Presently, marine mammal parks in the U.S. are only required to provide a “cause of death” to the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) which maintains Marine Mammal Inventory Reports (MMIR). Details of marine mammal deaths are now a closely guarded secret at U.S. entertainment facilities.

The Orca Project acquired the following documents from the National Marine Fisheries Service (U.S.A.) via the Freedom of Information Act for deaths that occurred prior to implementation of the 1994 MMPA changes.

For more information visit www.theorcaproject.com

Necropsy, Autopsy, Veterinarian, NOAA, NMFS, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, MMIR, Marine Mammal Inventory Report, MMPA, Marine Mammal Protection Act, Killer Whale, Orca, Shamu, Death, Die, SeaWorld, Orlando, Florida, Kona, Kona II, Kona 2, fetus

SEA WORLD
GROSS NECROPSY REPORT

FACILITY: Sea World Florida **PROSECTOR:** Cornell, Lynch, Walsh,
McBain, Dalton

GENUS/SPECIES: Orcinus orca

ID NUMBER: Oo 7701 **AGE:** Approx 14-16 **SEX:** Female

DATE OF DEATH: 10-15-87 6 am **DATE OF NECROPSY:** 10-15-87 10 am

EXTERNAL MORPHOMETRICS: (metric only)

WEIGHT: 5,000 lbs

TOTAL LENGTH: 550 cm **GIRTH AT AXILLA:** 294 cm

GIRTH AT ANUS: 210 cm **FLUKE WIDTH:** 127 cm

MAX GIRTH AT DORSAL FIN: 316 cm **DORSAL FIN HEIGHT:** 60 cm

HISTORY: 7-10 day history of hyperactivity. No clinical explanation found. 5 days before death animal appeared to be circling to right and less responsive to left as if a central nervous system problem was present. Three days prior to death the left blow flap was noted to be paralyzed. Aspiration of swelling showed normal cytology. Animal looking at personnel mainly with right eye. Rapid deterioration and death on 10-15-87, Drs. Cornell, McBain, Lynch and Walsh present. Measurements by Dr. Odell.

GENERAL EXTERNAL APPEARANCE:

Animal is in good flesh. No obvious external wounds . Left epidermis more worn related to circling.

SUBDERMAL CONDITION: (blubber, muscles, lymph nodes)
Nodes of cervical neck appear enlarged and dark in color.

CRANIAL EXAM: (ears, melon, pterygoid sinus)
Left blow flap occluding 70% of passageway. Fibers of muscle bundles appear smaller. no signs of abcessation. Attempted to dig out peripheral nerves at root base.

CENTRAL NERVOUS SYSTEM: (brain, pituitary, spinal cord)
Brain - no gross lesions.

THORACIC CAVITY: (pleura)
No pleural abnormalities but subsurface masses in lung perynchyma noted.

UPPER RESPIRATORY SYSTEM: (nasal sacs, nares, larynx)
White coloration of nasal area appears normal no yeast found. Possible infarct in left blow flap 1x2x1 cm superficially.

LOWER RESPIRATORY SYSTEM: (trachea, bronchi, lungs, lymph nodes)
Trachea clear, bronchi - froth present. 4-5 subsurface abcesses present in each lung. Average 8x10 cm in size. Central area is liquified. Walls appear chronically thickened - may be active center or may have out grown blood supply.

CARDIOVASCULAR SYSTEM: (heart, aorta, major vessels)
Possible thickening of A-V valve leflet edges.

ABDOMINAL CAVITY: (lymph nodes)

No excess fluid present, nodes of mediastinum appear enlarged.

DIGESTIVE SYSTEM: (esophagus, stomach, intestine, cecum, rectum, lymph nodes)

Esophagus - normal

Stomach - no gross lesions

Colon is hyperemic

LIVER: (biliary system)

No gross lesions.

PANCREAS:

No gross lesions.

SPLEEN:

No gross lesions.

REPRODUCTIVE SYSTEM: (testicles, ovaries)

6 cm fetus in right horn, 8 cm corpus luteum on right ovary, 6.5 cm cyst on right fallopian tube.

URINARY SYSTEM: (kidneys, ureter, bladder, urethra)

No gross lesions.

ADRENAL GLANDS:

No gross lesions.

SKELETAL SYSTEM:

No gross lesions.

PARASITE SUMMARY

None observed.

SPECIAL TESTS

Cultures on all organs.

Saved tissue for virus and heavy metals.

GROSS SUMMARY

Animal's clinical signs of possible CNS disorder and tendency to circle to right may correlate with left blow flap paralysis. The only other substantial finding was the apparently chronic lung abscesses present bilaterally.

TENTATIVE DIAGNOSIS:

Open - Difficult to connect lung problem with clinical signs. May have combination of problems.

- 1) Chronic lung abscessation
- 2) Possible nervous disorder - circling and left blow flap paralysis - possibly related to vascular accident

CONCLUSIONS: (after histology & clinical pathology review)

This whale originally showed possible nervous system abnormalities which were partially verified by the histologic pictures of what appeared to be facial nerve. The presence of large chronic abscesses in the lung is difficult to connect to the clinical signs observed. A glomerulonephropathy noted on histology has been associated with immune mediated disease which may have an interesting relationship to the neuritis. A specific cause of death for the animal is not apparent. While the lung abscesses could become a source of chronic infection it appears that they were present for an extended period. The possibility of an immune related problem can not be ruled out at this point.

DATE:

10-15-87

SIGNED:

Michael J. Holt