



DIVISION OF SURGICAL PATHOLOGY

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December 7, 1992

Graham Worthy, Ph.D
Texas Marine Mammal Stranding Network
4700 Avenue U
Galveston, Texas 77551

RE: Tursiops PA 236

Dear Dr. Worthy:

This will report to you my findings in the case of the Tursiops referenced above. My opinion is based on the gross autopsy examination and study of histologic slides prepared from the tissues. A summary of the gross autopsy findings is attached. A detailed description of the histopathology is available.

The major finding in this animal was a large abscess of the head and neck, with extensive muscle necrosis. We cultured a variety of organisms from this lesion. There are listed in the appended gross description. In addition, the animal had an unusual degree of parasitism, with a very large tapeworm in the gut, and a heavy infestation with lung worms. There were many foci of acute pneumonia, associated with larval nematodes, suggesting hyperinfection. There was also an active hepatitis, the cause of which is not determined at this time. We will be doing additional studies of the liver. there was extensive acute degeneration of the myocardium, which I would attribute to sepsis or terminal stress.

Little else abnormal was found, except for emaciation and diffuse enlargement of lymph nodes, attributable to the underlying disease.

I would attribute death in this animal to natural causes. There is no evidence of human interaction.

Sincerely,

A handwritten signature in cursive script, appearing to read "D. Cowan".

Daniel F. Cowan, M.D.
Professor of Pathology

Dolphin autopsy.

February 5, 1992

PA 236 Tursiops truncatus 230 cm female.
Weight 107.0 KG
Age 11.6 years (#GLG)

Animal was recovered dead, Code 2. Nueces County w. side of Padre Island. N side of Zahn Road within 200 yards of Zahn Rd between Park Rd 53 and the beach. 27.37.10 lat, 97.12.45 long

External Examination: Animal is very emaciated with many lesions on the face, dorsal fin, pectoral fins and fluke. "Looks like a viral infection", according to the stranding staff.

There is a big abscess, right side of the head and neck, at least from the angle of the jaw to over-riding the scapula. One drainage tract, but able to aspirate 5 ml pus through a small needle with no problem. Abscess erodes underside of the blubber, penetrates a full finger depth into the muscle, which is necrotic. The cavity measures 25 cm front to back. 12-15 cm dorsal ventral. Fluid pus is yellow, muscle looks like cottage cheese. No bad odor.

The thyroid gland is meaty in texture, and weighs 23.9 G. Very close to it is what appears to be large, 35x21x8 mm reactive lymph node. This is designated paratracheal lymph node, blocked as PA TR LN.

Fluke abscess is relatively superficial. Extensive loss of epidermis from side of the head and around the mouth is healing over with a thin, intact non-pigmented epidermis.

"Pus pocket" in the teat. No surface connection.

Very little meat on the ribs. Blubber is thin.

Internal Examination:

Lungs are dense, with many worm nodules, and also many whitish patches suggesting pneumonic infiltrates. Large numbers of nematodes in the bronchi.

The myocardium is mottled. The valves are normal, as are the coronary arteries.

The liver is darker than usual, but also a bit mottled, with a suggestion of nutmegging.

There is a very long and wide tapeworm in the gut. Looped back on itself. 18 feet of worm measured. Not entirely sure it is one worm. May be more than one.

Feces collected in formalin. Lab identified two kinds of ova, one looked like diphyllbothrium lata, one looked like paragonimus.

Nasal sacs free of parasites. sinuses have many flukes.

General impression from the gross examination: Death from sepsis. Chronic abscess, pneumonia, parasitism.

Cultures: Stool: Proteus sp.: Gram negative bacilli, two types, not identified.
Clostridium perfringens.
Pus: 3 different anaerobes; 2 aerobes.
Pus: Morganella morgani: Staphylococcus aureus: Beta hemolytic
streptococcus Group C; Pseudomonas putrifaciens.
Parasite exam: D. latum: fluke ova.