School of Veterinary Science

Pathology Report

Submitter Ref.: H271	Date Sent:	Accession No.: **55810**

To: [redacted]
Kaikoura

Email:

Report Sent: 04/05/2018
Copy To:

Species: Cetacean		Breed: Hector's Dolphin	
Age: Adult		Sex: Unknown - scavenged	
Owner: Department of Conservation			Type: Post Mortem
ID:			Prev. Accn.:
Submitted:	At Risk:	Affected:	Dead:

Gross Findings

This dolphin was received frozen. It weighed 37.5kg (but note scavenging), and was 1.45m in length. The sex could not be established due to shark scavenging.
The dolphin was in very poor body condition, with prominent lateral spinous processes due to marked loss of epaxial and hypaxial muscle mass. There was extensive scavenging, with presumed shark bites resulting in removal of a large section of the belly at the level just caudal to the pectoral flippers, and of the anogenital region. The intestines were partially herniated through the bite. There was no haemorrhage associated with any of the bites (inflicted after death). The teeth were worn, several were missing, and many were loose in their sockets. The skin surrounding the left eye was scavenged. There were no linear skin impressions, and no lacerations.
The blubber layer was thin (4mm laterally; 6 mm dorsally; blubber missing ventrally). A few cestodes were present within the blubber. The forestomach was slightly distended by large numbers of nematodes, while the mucosal (main) stomach contained scant brown fluid. The mucosa of this compartment was proliferative, with numerous attached trematodes. There was minimal ulceration. Only one fish bone was found on washing of stomach contents. The intestines had been opened at several points by the scavengers, and the distal part of the tract was missing.
The lungs were well inflated. Occasional nematodes were present within small airways. There was no apparent fluid or froth. The endothelial surface of the caudal thoracic aorta, extending to the abdominal aorta, had multifocal to coalescing white, rough plaques extending approximately 15cm. Small white foci were present in the base of the aorta, and surrounding the base of the coronary artery. There was a small (2 x 3mm) pink fleshy protruding mass between two cusps of the aortic valve.
The bladder was missing, as were the reproductive organs and surrounding soft tissue. The kidneys were grossly normal.

Histopathology

Summary:
Aorta: arteriosclerosis with chondroid metaplasia, lymphoplasmacytic arteritis (media) and intraluminal thrombosis
Lungs and thoracic lymph node: multifocal parasite granulomas
Kidneys: Moderate glomerulosclerosis with protein casts and mineralisation
Heart: Aortic valve chondroid metaplasia and lymphoplasmacytic arteritis; multifocal moderate/marked intracytoplasmic myocardial inclusions; mild multifocal myocardial fibrosis

Diagnosis

1. Chronic aortic and heart disease
2. Chronic kidney disease
3. Moderate to severe parasitism (lungs and stomach)

Comments

This dolphin had no lesions to suggest entanglement or other human-related injuries. The shark bites appeared to have occurred after death (i.e. scavenging rather than predation), and the poor body condition suggests an underlying disease process rather than sudden death of a healthy animal. The worn teeth and heart lesions indicate that this was an old animal. Histology showed lesions in the heart, aorta and kidneys which, along with the parasitism, would likely have combined to result in the poor body condition and death of this dolphin.

Date: 04/05/2018	Pathologists: [redacted]
Students:	