

CAPE OF GOOD HOPE SPCA
GRASSY PARK
7945

2023-07-06

For attention: DR RAMNANAN

OUR REF: JB695173, OWNER NOT SPECIFIED CANINE 098638 ADM

Specimens:

Organs in formalin

History:

Emaciation

MORPHOLOGICAL DIAGNOSIS:

1. *Pyelonephritis; severe, chronic-active, multifocal*
2. *Enteritis; lymphoplasmacytic, moderate to severe with nematodiasis*

Postmortem examination:

1. The carcass is that of an adult male, white and tan, intact Pitbull that was mildly autolysed. The case is labelled with admission number 098638 and case number 186413.
2. The patient was in extremely poor body condition (1/5). There was severe temporal muscle atrophy, prominent spinous processes with severe atrophy of the epaxial muscles and prominently showing ribs.
3. There was virtually no subcutaneous fat, and the carcass was tacky and dehydrated.
4. The oral mucous membranes were pale and there was some left sided hypostasis. The oral exam was unremarkable.
5. The temporo-mandibular joints are within normal limits.
6. The oesophagus was within normal limits
7. The kidneys show a mildly irregular external capsular appearance with variable sunken areas. On cut section, patchy cortical depressions are noted with a mottled grey to black appearance. The medulla and the pelvis are normal.
8. The stomach was filled with multiple, small 1-4cm size bones. There was visible impaction of the gastroduodenal junction. Linear red discolorations were also noted in the fundic regions.
9. The small intestine contained numerous, approximately 10mm long round worms visible on the mucosal surface. Scant white mucoid material was also present within the lumen.
10. A small, 2cm dry, impacted faecal pellet was noted in the caecum.
11. The colon contained dry, white to grey mucoid material.
12. The heart showed no pericardial fat but was structurally within normal limits.
13. The lungs were mottled red to white with mild left sided hypostasis visible.
14. The urinary bladder was small and empty.
15. The mesenteric lymph nodes were slightly discoloured grey.
16. There was severe serous atrophy of the mesenteric and mediastinal fat.
17. No other macroscopic abnormalities were noted in the remaining organs.

Histopathological description:

Liver: There is mild to moderate hepatocellular atrophy along with marked diffuse congestion. The hepatocytes exhibit mild vacuolar change.

Adrenal gland: No microscopic pathologist detected

Pancreas: Moderate zymogen granule depletion is observed.

Lymph node: There is mild sinus histiocytosis with occasional erythrophagocytosis and hemosiderin accumulation.

Lungs: No microscopic pathology detected.

Spleen: No microscopic pathology detected.

Thyroid: No microscopic pathology detected.

Stomach: There are multiple areas of mild congestion observed within the mucosa.

Small intestine: The mucosa exhibits a mild to occasionally moderate and severe infiltrate of lymphocytes and plasma cells which also extends below the level of the intestinal crypts. Occasional eosinophils are observed as well.

Kidneys: Histologically there are areas of marked to severe interstitial lymphoplasmacytic infiltration within the cortex resulting in fibrosis and loss of renal tubular epithelial cells. A few affected tubules within the regions do show accumulation of proteinaceous material. There are also a few interstitial macrophages which contain yellow-brown pigment. Similar lymphoplasmacytic infiltrates are also visible within multiple sections of the medulla and there are visible mineralization's within tubules. Some sections also show the presence of intratubular neutrophils as well as macrophages and they occasionally extend into the adjacent interstitium.

Skel. muscle: No microscopic pathology detected.

Large intestine: No microscopic pathologist detected.

Discussion:

This animal was clearly in severe distress and was severely emaciated. The exact cause is more difficult to determine but likely there are several contributing factors to consider.

Firstly, and the most important in my estimation, is that this dog's diet was wholly inadequate. The entire stomach volume was completely taken up by large bone remnants. This completely obliterated any volume left to ingest normal food. Any food that was able to be eaten, could barely pass through as the bones had become impacted at the gastroduodenal junction and physically obstructed food flow to the small intestine. Only scant, small particles were noted in the small and large intestine. This patient was likely suffering from chronic vomiting or regurgitation due to the outflow obstruction. Unfortunately, the bones were too large to be vomited up.

Second, macroscopic examination revealed a severe worm burden. Histologically, this was characterised by a quite severe lymphoplasmacytic mucosal infiltrate in areas. This reaction could absolutely have been triggered by the worm burden. This could have been cleared with a simple deworming course. Other possibilities to consider for this lymphoplasmacytic enteritis is a chronic enteropathy/inflammatory bowel disease, but only after internal parasites are completely eliminated from the equation.

The third factor here are the kidneys. They were clearly abnormal on macroscopic examination and histological examination confirmed a chronic-active pyelonephritis. Most likely this is from an ascending bacterial infection, but haematogenous origin cannot be completely excluded. These infections are relatively rare in males, but given the poor condition of the animal, immune system compromise is highly likely. The extent of the damage and reserve capacity of the renal system are difficult to determine post mortally. This is best assessed with renal enzyme levels ante mortally, but the injury could certainly also have caused azotaemia. This can manifest as poor appetite, excessive drinking and also vomiting as well as progressive loss of condition, but please correlate with this animals' history.

Regardless, this patient was clearly in distress and had been for quite some time to reach this level of emaciation which resulted in death.

Yours faithfully

Dr. Collin Martin

BVSc, MMedVet
Anatomical Pathology
e-mail: collin-martin@Idexx.com
Mob: +27(0)66 476 5498
Tel: +27(0)11 691 8200



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Laboratory Operations
Idexx Laboratories (Pty) Ltd
<https://idexx.co.za>

57 Forssman Close, Unit 8
Kyalami Village, Barbeque Downs
Johannesburg

+27 11 691 8200
lab-sa@idexx.com

Account:
CAPE OF GOOD HOPE SPCA
C/o 1st Avenue & 1st Road

Grassy Park 7945
Telephone: 021 700 4140/5

Owner: OWNER NOT SPECIFIED
Patient: 098638 ADM
Gender:
Specie: Canine
Age: 0Y 0M 0W
Breed: PITBULL X

Lab number: JB695173
Received: 30 June 2023
Printed: 06 July 2023
Referring vet: DR RAMNANAN
Your reference:

FINALISED LABORATORY REPORT:



098638 ADM

REVISION 2/2

CLINICAL HISTORY:

<u>Testname</u>	<u>Test value</u>	<u>Units</u>	<u>Flag</u>	<u>Range</u>
Sample Handling				
Histopathology Necropsy (max. 3 organs)				
Histopathology Necropsy - Additional Organs (max. 3 organs)				

LABORATORY OPERATIONS: Address: Idexx Laboratories (Pty) Ltd, 57 Forssman Close, Unit 8, Kyalami Village, Barbeque Downs, Johannesburg

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