

**DATE PRESENTING CLINICAL SIGNS**

7.14.2023 Vader has been losing weight, is more lethargic and not eating well. He is also having diarrhea. PE shows a cat in poor body condition with thickened intestines. Bloodwork shows a high wbc with a mature neutrophilia and monocytosis as well as a mild anemia with lots of Heinz bodies. I am suspicious of intestinal cancer/IBD.

PATIENT

Vader Eubank-Warble

Current Medications: started him on Mirataz, Cerenia, metronidazole
 Lab Results: HCT=26%, WBC=50,900 with 44,000 neuts, 1000 monos
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: IV: Torb.
 Stat Report: Not requested.
 Imaging Performed By: Rachel Brillhart, RDMS.

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

1/1/2016

WEIGHT

7.75 lbs

INTERPRETED BY

Kathleen Sennello
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 ACVIM (Small Animal
 Internal Medicine)

HOSPITAL NAME

Cat Sense Hospital &
 Boarding, Inc

REFERRING VET

Dr. Sinclair

INVOICE

13703

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal in size (3.94 cm) and irregular in shape (likely due to previous infarcts) with a large area of shadowing mineralization in the cortex (0.75 cm). Overall echogenicity is normal with decreased corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia is present (0.11 cm). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal in size (3.35 cm) and slightly irregular in shape. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. At least two small nephroliths are visualized in the renal pelvis (one measuring 0.29 cm) and mild pyelectasia (0.19 cm). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.43 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.41 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size (0.52 cm), echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. The jejunum measured 0.27 cm in diameter. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery, with a prominent pancreatic duct (2.50 cm in the left limb). There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. There is a mild diffuse mesenteric lymphadenopathy with clusters of hypoechoic rounded lymph nodes (examples of which measure at 0.57, 0.62 and 0.41 cm). The omentum is slightly hyperechoic around these lymph nodes.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

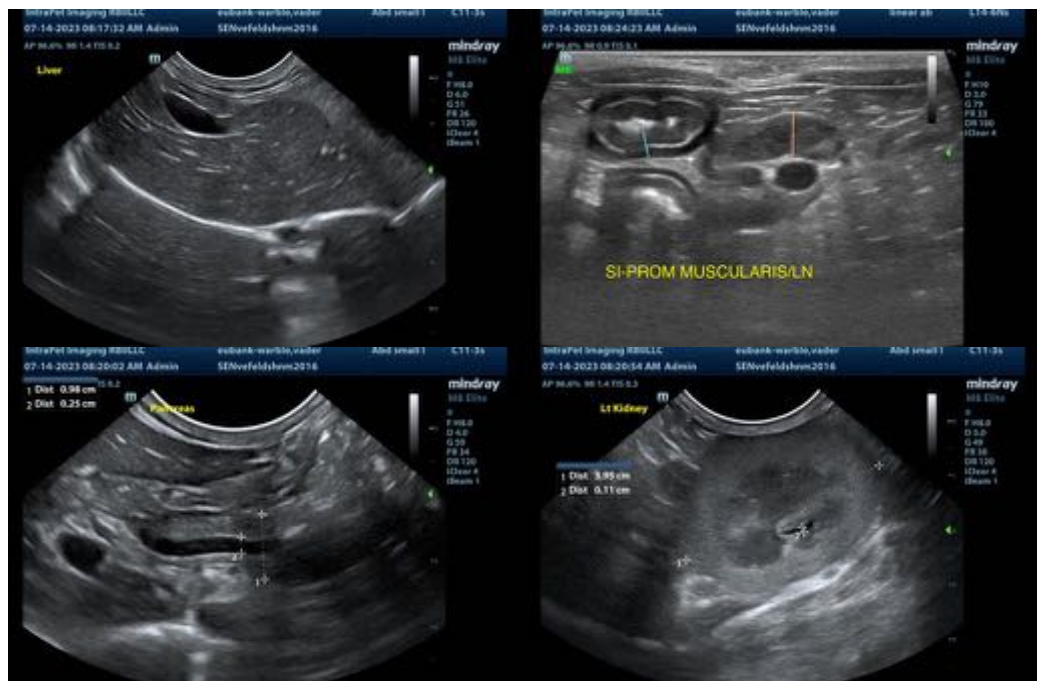
- Decreased corticomedullary junction in both kidneys with nonobstructive nephroliths (nephroliths in the pelvis of the right kidney) and very mild pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Hyperechoic foci are visualized in the kidney most consistent with nephroliths. There is no current evidence of obstructive disease. Correlate findings with abdominal radiographs, urinalysis, and culture. Continued monitoring is warranted for progression/obstruction. Continued monitoring of the right kidney is warranted for shifting of the stones.
- Prominent mottled pancreas with a prominent pancreatic duct – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Subjectively “ropey” small bowel with a prominent muscularis layer – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.
- Clusters of prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a generalized appearance of “ropey” small intestine, which appears mildly thickened with a prominent muscularis layer. Wall layering is intact. Additionally, there are some clusters of prominent mesenteric lymph nodes which are likely inflammatory (although an underlying early neoplastic process cannot be definitively ruled out). Consider a fine-needle aspirate of the mesenteric lymph nodes and the following:

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks).
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc. to further evaluate for pancreatic/small intestinal disease.
- Recommended chronic probiotic therapy.
- If symptoms are persistent, consider obtaining GI biopsies.
- Recommend three-view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

There are significant changes observed in both kidneys, with reduced corticomedullary distinction, small nephroliths and likely, some previous infarcts. Recommend a blood pressure, urinalysis and culture as a baseline and continued monitoring of the kidneys (particularly the right kidney as the small stones appear to be in the renal pelvis, and are nonobstructive at this time, but if the position shifts, this could be an issue).





The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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