

**DATE PRESENTING CLINICAL SIGNS**

4/6/23

P presented for weight loss, anorexia; PE relatively unremarkable other than wt loss and moderate dental disease; recent BW demonstrates elevated liver enzymes and bilirubin; dispensed denamarin for liver support in addition to mirtazapine for appetite stimulation prn

PATIENT

Bandit Wiater

Current Medications: Mirtazapine.
Lab Results: See attached.

SPECIES

Feline

Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brillhart, RDMS.

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Intact Male

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

AGE

1/31/08

The left kidney has a normal shape and size (4.03 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

13.3 Pounds

The right kidney has a normal shape and size (3.94 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

Adrenal Glands

The left adrenal gland is normal in size measuring 0.49 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.

HOSPITAL NAME

Bayside AMC

The right adrenal gland is normal in size measuring 0.43 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.

REFERRING VET

Dr. Beigel

Spleen

The spleen is subjectively normal in size (0.73 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.

INVOICE

46460

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 gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and 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. Jejunum wall measures 0.30-0.37 cm. Visualized peristalsis appears appropriate. There is the general impression of diffusely thickened small bowel, and in some area the bowel appears hypoechoic with fuzzy detail and loss of wall layer distinction, concerning for early infiltrative disease.

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 hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid. Prominent pancreatic duct noted at 0.19 cm.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a small cluster of prominent lymph nodes around the ileocecal junction. These lymph nodes are surrounded by hyperechoic mesentery and measure 0.30 cm and 0.35 cm.

ULTRASONOGRAPHIC FINDINGS

- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Hypoechoic, prominent pancreas with prominent pancreatic duct – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Thickened small intestine with fuzzy distinction of wall layering and decreased wall layering – Findings are concerning for infiltrative disease but could be consistent with severe inflammation, etc.
- Mild mesenteric lymphadenopathy – 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

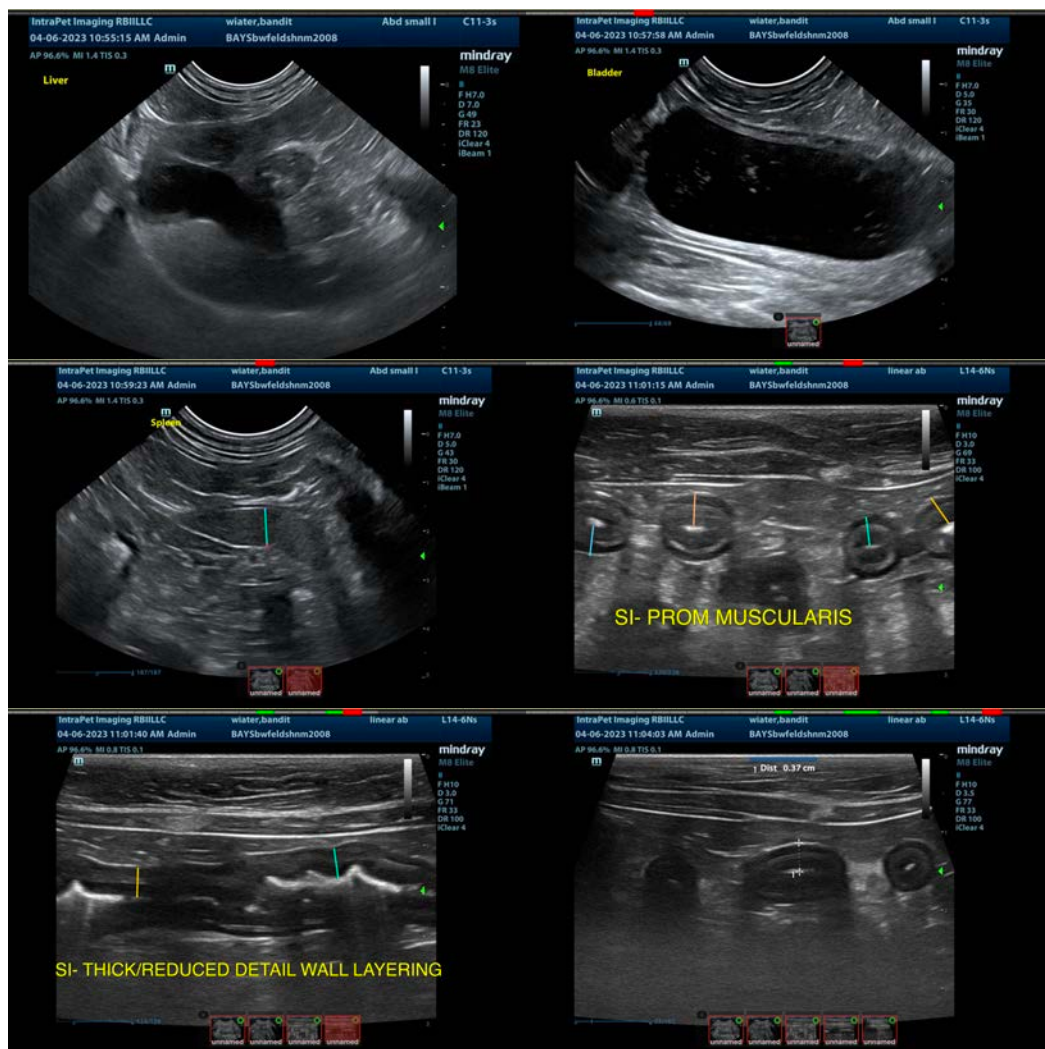
The liver and gallbladder appear relatively normal. The significant elevation in liver enzymes is likely due to a primary hepatopathy, as there is no evidence of a biliary obstruction, disease, etc. Consider a fine needle aspirate of the liver (provided coagulation parameters are normal) +/- screening for toxoplasmosis. Additionally, evaluate any historical medications, toxins, etc. that could be playing a role.

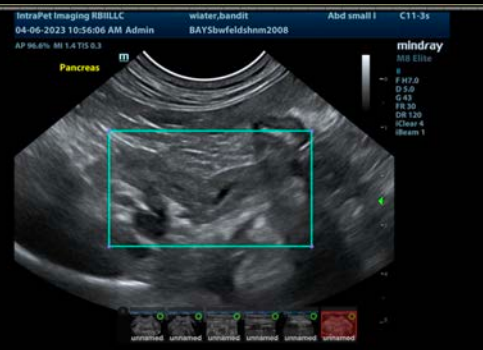
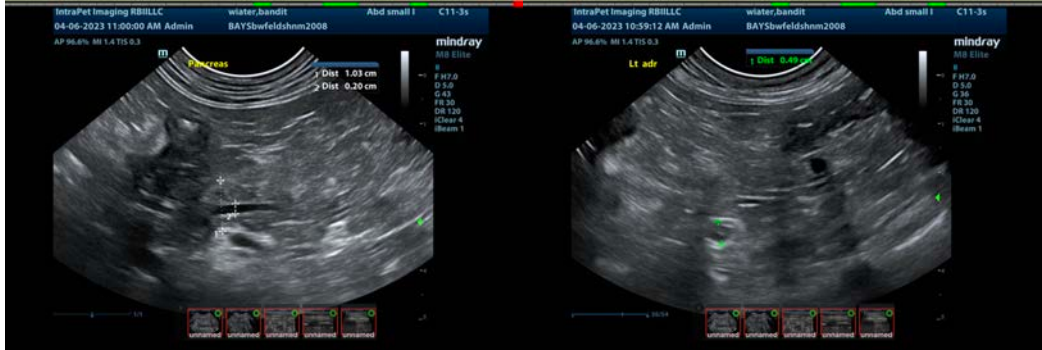
The majority of the lesions observed involved the small intestine and pancreas. The pancreas is prominent with a prominent pancreatic duct. It appears mildly inflamed with mild surrounding hyperechoic mesentery. Additionally, the small intestine appears thickened with fuzzy mucosa and reduced detail of wall layering. These changes are concerning for possible infiltrative disease (round cell neoplasia, etc.), although severe

inflammation (IBD) is also possible. It is likely that GI biopsies would be necessary to differentiate.

- Recommend a fine needle aspirate of the liver and screening for toxoplasmosis.
- Recommend empirical treatment for pancreatitis and a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate.
- If cytology of the liver is not helpful, consider obtaining surgical biopsies of the GI tract and liver.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. 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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