IMAGING PERFORMED BY

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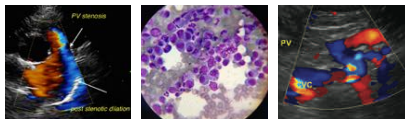

SonoPath
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DATE
10/14/21

PATIENT
Smokey Lowder

SPECIES
Canine

BREED
Mix

SEX
Neutered male

AGE
2007

WEIGHT
70.8 lbs

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

HOSPITAL NAME
Bayside Animal Medical Center

REFERRING VET
Dr. Beigel

INVOICE
92403

PRESENTING CLINICAL SIGNS

History: chronic bilious V+ typically managed with famotidine/omeprazole that has recently worsened (lethargy,
vomiting food) while owner was away. ALT in the 500s, BW otherwise
WNL on 9/24/21, ALT gradually increasing despite Denamarin +
abx + Cerenia, clinical signs/V+ wax/wane weekly.
Current Medications: Amoxicillin 500mg Caps, Denamarin 425mg K-9 Lrg., Metronidazole 500 mg, Cerenia 160mg
Lab Results: Attached.
Radiographs: N/A
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Torbugesic IV.
Stat Report: Not requested.

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 shape and size (6.71 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.67 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.88 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 0.86 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, 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 heterogenous in echotexture with subtle, indistinct focal mottling. 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 gallbladder 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 0.59 cm 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 relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (0.43 cm) and the jejunum measured as normal (0.38 cm). 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 normal and isoechoic to surrounding mesentery. 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. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Heterogenous liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

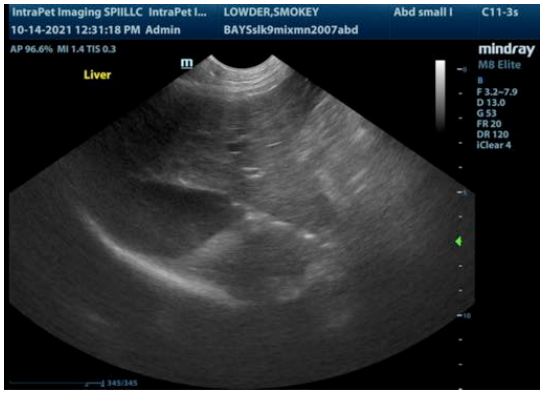
The ultrasonographic lesions visualized were mild and non-specific. It is not uncommon for there to be causes of vomiting and liver enzyme elevation that do not cause focal lesions identifiable on ultrasound.

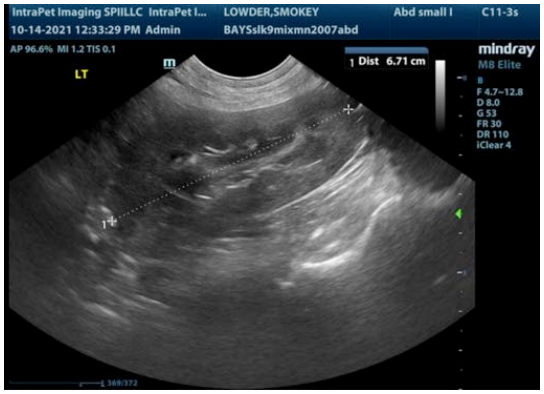
- I recommend a liver function test to evaluate the ALT elevation.
- Consider testing for Leptospirosis.
- Consider a FNA of the liver to rule out the potential of round cell neoplasia.
- In some dogs with a chronic smoldering hepatopathy/ALT elevation a liver biopsy is necessary to obtain a definitive diagnosis and the best plan for treatment. This is particularly recommended if the liver function is abnormal, but could be considered either way.

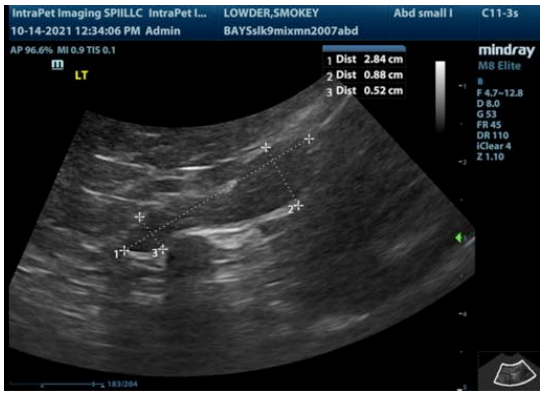
Additionally with the reported vomiting there could be a primary gastrointestinal problem or metabolic issue as of yet unidentified. Possible causes of primary GI vomiting include GI parasitism, dietary indiscretion, mild pancreatitis, bacterial dysbiosis, food allergy, IBD and less likely intestinal neoplasia.

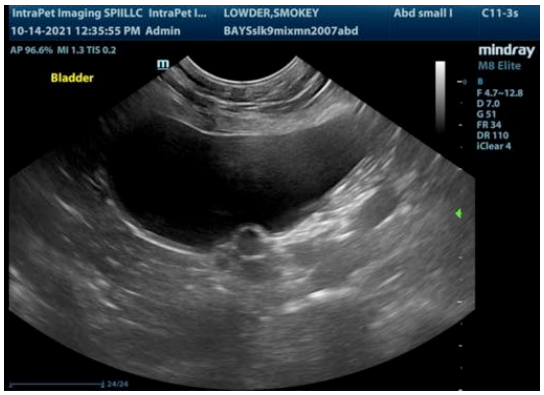
In older patients with more chronic symptoms, I would most strongly consider food allergy, IBD, and intestinal neoplasia.

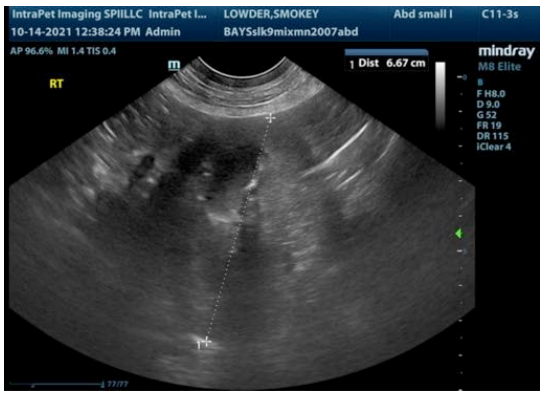
- Recommend diet trial with a novel protein/hydrolyzed prescription diet
- Recommend GI panel (B12, folate, TLI, and PLI) to further evaluate for pancreas and for chronic small intestinal disease.
- Recommend three view thoracic radiographs to evaluate the esophagus and for intrathoracic disease
- If symptoms are progressing consider obtaining GI biopsies

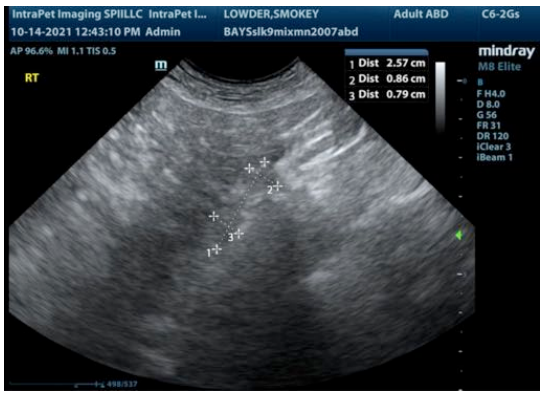


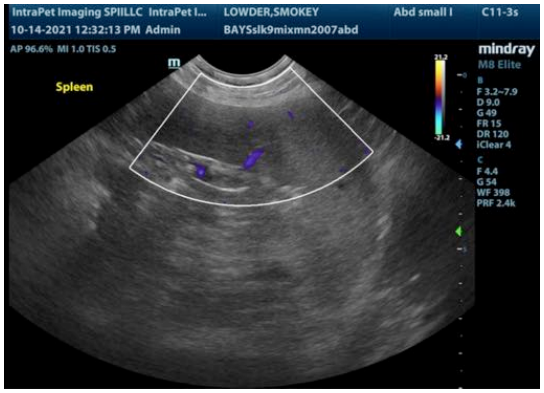


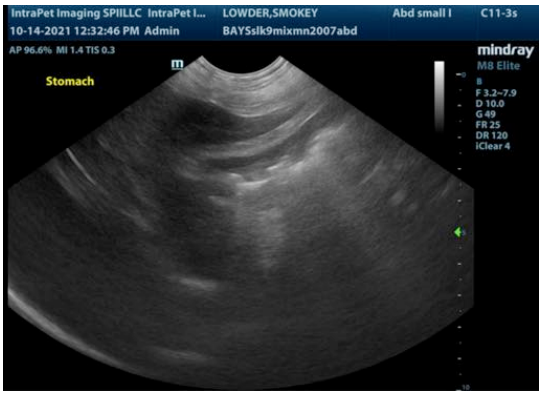












The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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