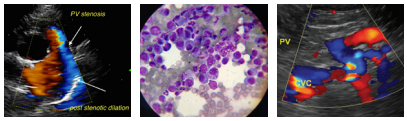
IMAGING PERFORMED BY

IntraPet.com



SonoPath

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DATE

3/10/22

PATIENT

Doc Jones

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

4/1/09

WEIGHT

10.9 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Eastern AH

REFERRING VET

Dr. Cusack

INVOICE

36079

PRESENTING CLINICAL SIGNS

Chronic diarrhea (at least since August 2021), weight loss, progressive heart murmur. History: O reports soft grey/yellow stool, occasionally defecates outside of the litter box, chronic weight loss (was 20.5lbs in 2020), O feeds halo turkey and duck canned food. Hx of HCM (dx by CVCA in 2019). PE: multiple missing teeth, grade 3/6 parasternal systolic heart murmur, diffuse muscle wasting.

Current Medications: Fortiflora SA, to start B12 injection 250ug SC once weekly for 6 weeks then once monthly.
Lab Results: Monocytosis 1.168, Thrombocytosis 967. Chemistry WNL. T4 1.7, pro BNP 1500. GI panel: TLI 89.9, Cobalamin <150, Folate 19.8. UA: USG 1.049, pH 6, protein 2+. Negative stool sample.
Radiographs:
Date of Previous IntraPet Ultrasound: No previous abdominal scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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.

The left kidney has a normal shape and size (5.11 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 (4.85 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 0.42 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 0.42 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 large in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in 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 primarily anechoic. The bile duct appears tortuous and mildly dilated at 0.25 cm.

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. Duodenum wall measured 0.36 cm. Jejunum wall measured 0.32 cm. There is mucosal fogging evident. 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis.

Free Abdomen

There is a small amount of free abdominal fluid. There is a mild to moderate mesenteric lymphadenopathy with mesenteric lymph nodes visualized measuring 0.64 cm, 0.62 cm. The omentum is of increased echogenicity around the pancreas and small intestine.

PRIMARY FINDINGS

- Prominent, hypoechoic pancreas surrounded by hyperechoic mesentery – The pancreatic changes are most consistent with mild/moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

- Large, hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy.

- Subjectively thickened small intestine with prominent muscularis layer and mild mucosal fogging – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.

- Mild/moderate mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

- Small volume abdominal effusion

SECONDARY FINDINGS

- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.

- Mildly prominent, tortuous bile duct – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other). No evidence of obstruction visualized.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

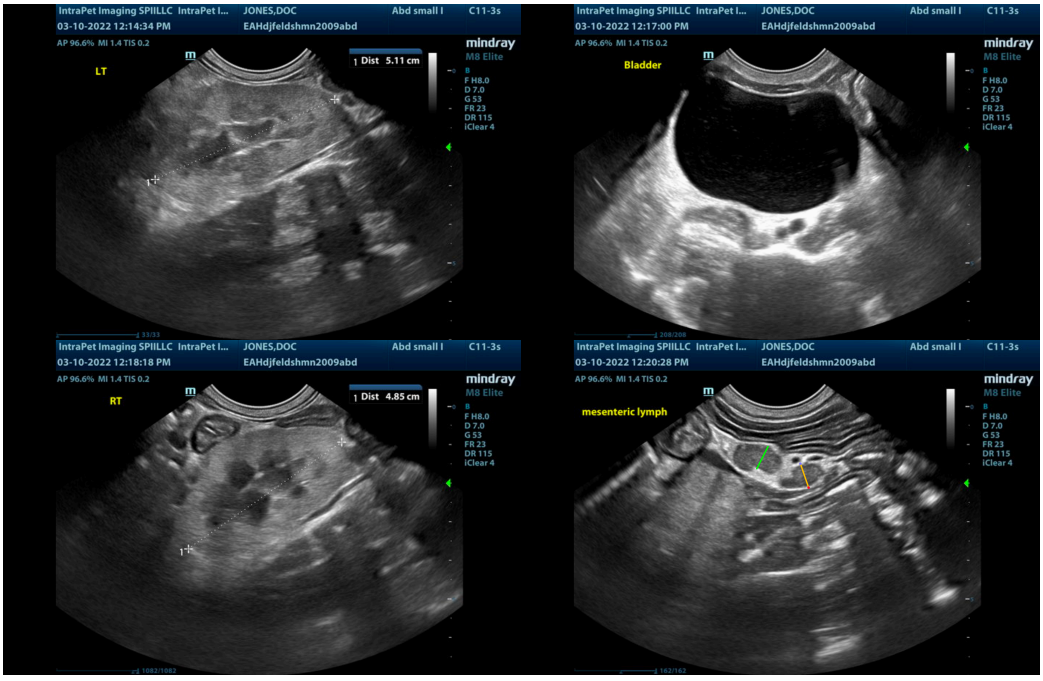
The general impression of this abdomen is of inflammation and edema. There is a small amount of free fluid. The bowel appears somewhat thickened with decreased detail of layering, likely due to edema and inflammation, and a prominent muscularis layer. Additionally, the pancreas is large, prominent and hypoechoic, and appears to be surrounded by hyperechoic mesentery. this is most consistent with active pancreatitis or resolving pancreatitis. The low B12 levels in the history support a diagnosis of chronic GI disease.

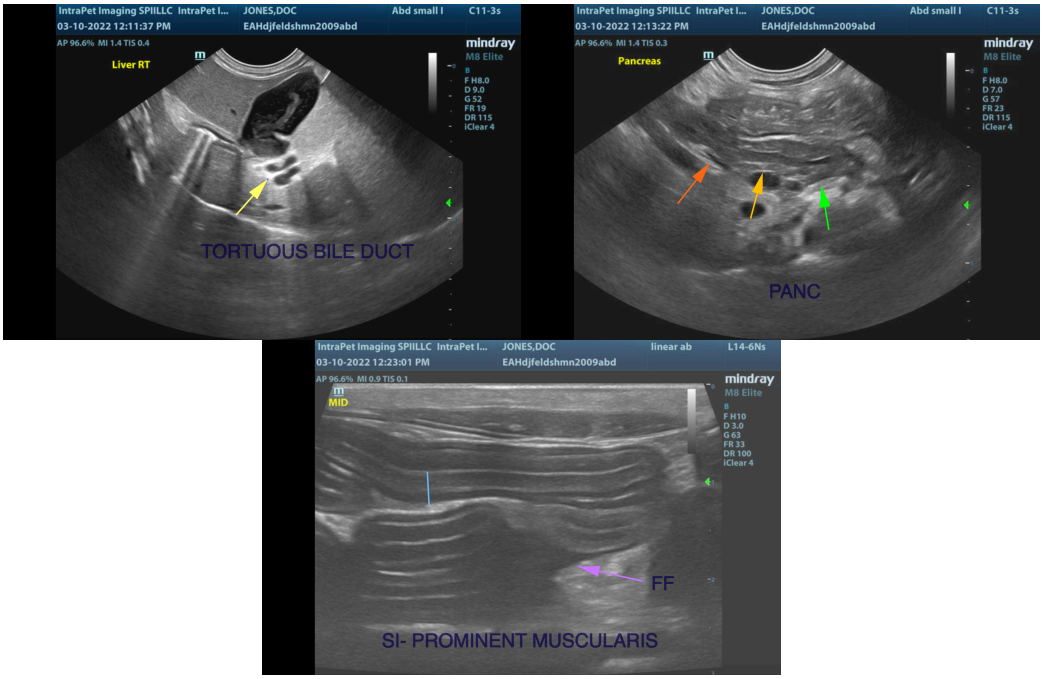
- Recommend a novel protein/hydrolyzed protein prescription diet.
- Recommend chronic probiotic therapy.
- Recommend B12 supplementation (as described in history).
- Ideally, this pet should have GI biopsies to obtain a more definitive diagnosis.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement. Additionally, consider a recheck cardiac ultrasound to see if the heart disease has progressed.

The liver appears large and hyperechoic. Given the significant weight loss reported, there would be concern for concurrent lipidosis. If liver enzymes are not elevated, then consider continued monitoring. Additionally, a fine needle aspirate of the liver could be considered to evaluate for infiltrative disease (additionally, right-sided heart disease could do this).

The pancreas appears prominent and inflamed. Consider treatment for pancreatitis including pain medications, nausea medication, etc.





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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