

**DATE PRESENTING CLINICAL SIGNS**

1/5/23 Jaundiced, losing weight, liver enzymes heightened, weight loss, no appetite.

PATIENT

Oyster Lawson

Current Medications: Prednisolone EOD.
 Lab Results: ALT over 1100, Tbili 18.3, HCT 28%.
 Date of Previous IntraPet Ultrasound: 8/9/22. See attached.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: DVM requested.
 Imaging Performed By: Andi Parkinson, BS, RDMS.

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

DSH

Urinary System

The urinary bladder is not clearly visualized.

SEX

Spayed Female

The left kidney has a normal shape and size (3.46 cm). 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

AGE

6/14/12

The right kidney has a normal shape and size (3.18 cm). 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

4.9 Pounds

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.

INTERPRETED BY

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

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

HOSPITAL NAME

Essex Middle River VC

Spleen

The spleen is subjectively normal in size (0.73 cm in width at the level of the hilus), hypoechoic and mottled. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

REFERRING VET

Dr. Franchini

Liver

The liver is mildly enlarged, with normal echogenicity and 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.

INVOICE

43936

The gallbladder lumen is significantly distended. The wall of the gall bladder appears mildly thickened, measuring 0.15 cm. There is a moderate amount of non-organized echogenic debris. The proximal cystic duct and bile duct appear dilated and tortuous with thick wall and intraluminal mucoïd debris. Proximally, the bile duct is visualized measuring 0.66 cm with dilation improving as it passes more distally.

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 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 (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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 mild to moderate pancreatitis. Dilated pancreatic duct noted at 0.13 cm.

Free Abdomen

There is no significant free fluid. No lymphadenopathy noted. The omentum is diffusely hyperechoic.

PRIMARY FINDINGS

- Distended gallbladder with mildly thickened wall and dilated 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).
- Hypoechoic, mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Hypoechoic, prominent pancreas with a dilated duct and surrounding hyperechoic mesentery – The pancreatic changes are most consistent with mild to 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.

SECONDARY FINDINGS

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The gallbladder appears significantly distended, and the bile duct is distended and tortuous with a thickened wall and some mucoid debris. An obvious site of obstruction is not visualized. This could be a primary physical obstruction due to a stone, mass effect, mucoid plug, mass at the duodenal papilla, etc., or a more functional obstruction due to inflammation, mucoid debris, etc. (severe cholecystitis). The appearance of today's scan trends towards an obstructive process, but a clear obstruction cannot be visualized.

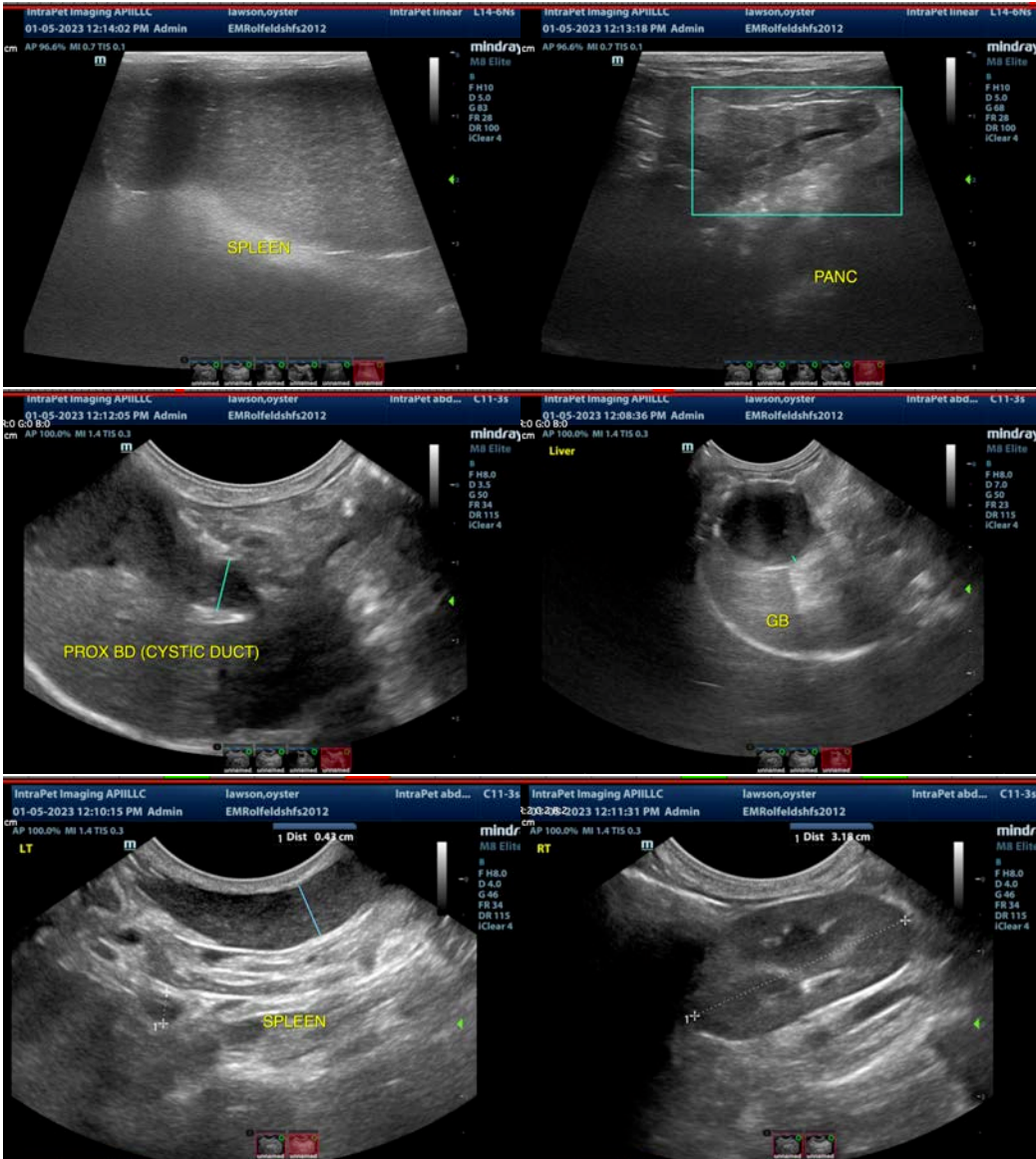
The pancreas is prominent and hypoechoic and appears more prominent than the previous scan, but the mesentery is more hyperechoic, so this could be artifact. Findings today are most consistent with mild to moderate pancreatitis, which could be contributing to a post-hepatic biliary obstruction.

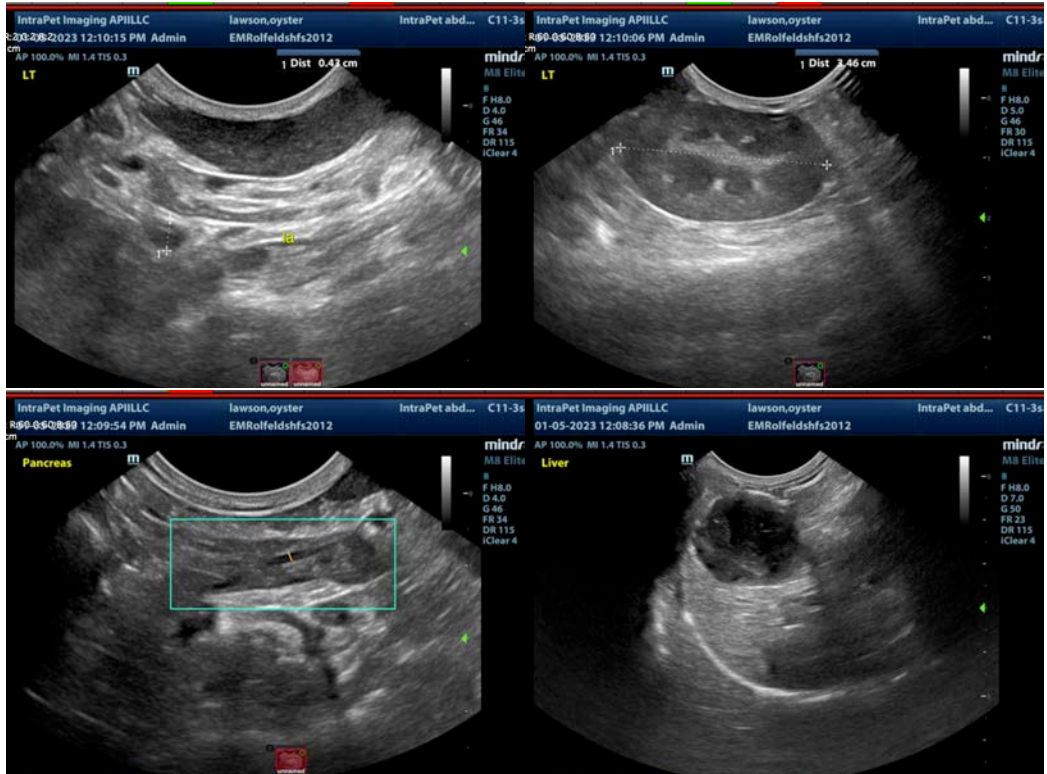
It is also possible for there to be a concurrent primary hepatopathy. If clotting parameters will allow, consider a fine needle aspirate of the liver. A fine needle aspirate of the spleen should be performed at the same time.

The prominent small intestine and lymph nodes are not visualized on today's exam, which could be secondary to the Prednisone therapy.

Ideally, this patient requires critical care, a contrast CT scan to look more closely for a possible mass lesion, and/or surgical evaluation to look for a possible obstruction and biliary rerouting if necessary, provided medical therapy doesn't work.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com