

**DATE PRESENTING CLINICAL SIGNS**

4/18/23 Weight loss, inappetence. Has recently been shaking ears, not improved after treatment. Was seen for 1-2 episodes of ataxia, head tilt, protruding 3rd eyelid 2/23- now resolved. Today possibly jaundice.

PATIENT

Zoe Sobczak

Current Medications: None currently.

Lab Results: ALT 132 (10-100) 3/13/23. ALT 318 on 3/28/23. BW declined on 4/14.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Gabapentin PO.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

SPECIES

Feline

BREED

Maine Coon

SEX

Spayed Female

AGE

5/1/09

WEIGHT

20.8 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Honeygo AH

REFERRING VET

Dr. Mullenex

INVOICE

46732

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is mildly 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 (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.

The right kidney has a normal shape and size (4.35 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.37 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 0.50 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 (0.72 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 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 mild and primarily anechoic. The cystic and common bile duct appear slightly prominent and tortuous, measuring at 0.28 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. Jejunum wall measures 0.21 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 prominent and mottled 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.

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.

PRIMARY FINDINGS

- Hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. This could also represent normal fatty infiltration in an overweight cat.
- Slightly prominent/tortuous bile duct – This can be a normal finding in some older cats. No obvious obstructive process is visualized.
- Mildly prominent muscularis layer to the small intestine – 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.

SECONDARY FINDINGS

- Mildly echogenic debris visualized in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Slightly prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes observed on today's scan are somewhat subjective and of unknown significance. The liver appears somewhat hyperechoic. This can be seen associated with primary hepatopathies (infectious, inflammatory, infiltrative neoplasia, etc.), but this can also be seen as normal fatty infiltration in larger cats. If liver enzyme elevations are persistently present, then consider a liver function (pre- and post-prandial bile acids) as well as a fine needle aspirate of the liver (provided coagulation parameters are normal). Additionally,

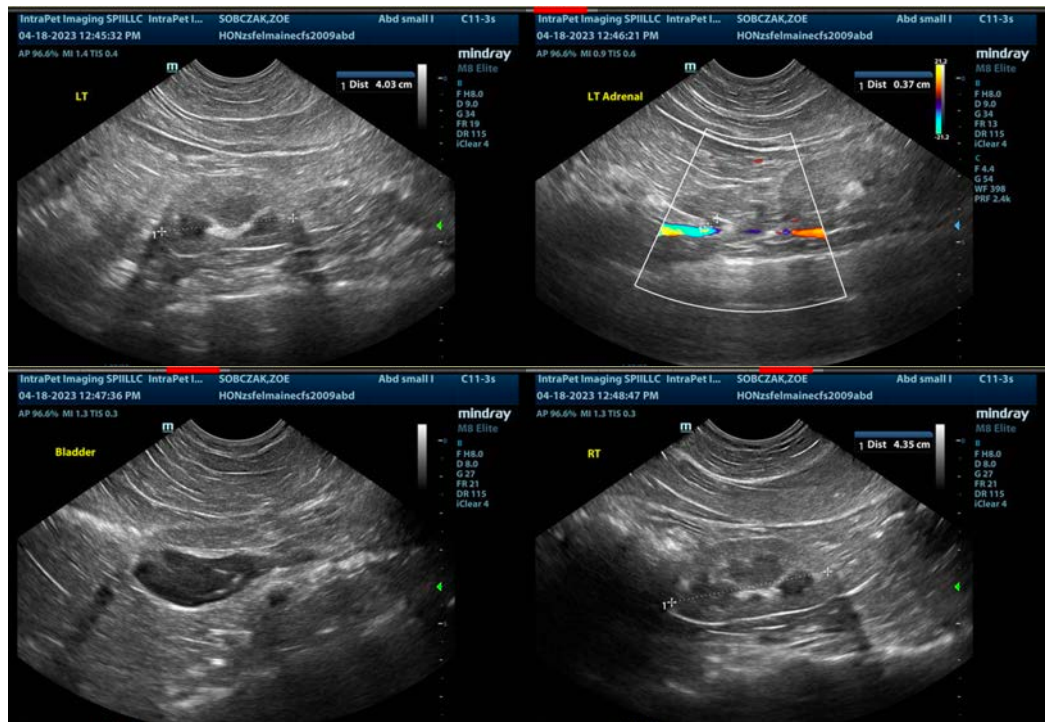
you could screen for toxoplasmosis. If aspirates are supportive of lipidosis, then consider assisted feeding.

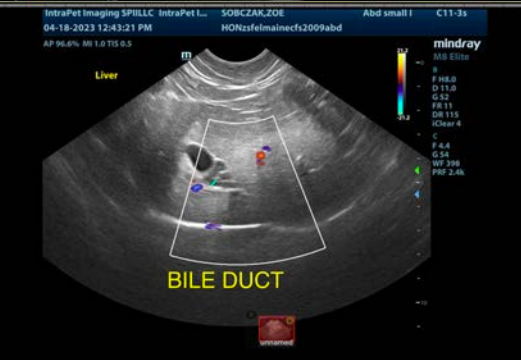
The changes observed in the bile duct and the pancreas are very mild and likely incidental, but continued monitoring is warranted. Correlate these findings with a quantitative fPLI level.

The muscularis layer appears slightly prominent on today's exam. This too can be a normal finding in some older cats, but if a primary enteropathy is suspected (this can be supported by abnormal findings on a GI panel to Texas A&M) and liver enzymes are elevated, underlying Triaditis could be possible.

- 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.
- Consider chronic probiotic therapy.
- If applicable, treatment for cholangiohepatitis could be considered with Ursodiol and antibiotic therapy (spaced at least one hour from probiotic therapy).

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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