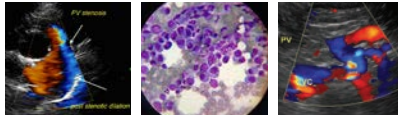


DATE
11/3/22

PATIENT
Martha Byrne

SPECIES
Feline

BREED
DSH

SEX
Spayed Female

AGE
11/1/08

WEIGHT
13.1 Pounds

INTERPRETED BY
Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY
Rachel Brilhart RDMS

HOSPITAL NAME
Eastern AH

REFERRING VET
Dr. Bottaro

INVOICE
42546

PRESENTING CLINICAL SIGNS

P presented for weight loss and not eating as well but still eating. Mild dental disease noted on PE. P is a caution so full exam was minimal. 14.06lbs 9/29/22, 13.1lbs on 10/27/22. Was treated with tresaderm for otitis externa on 9/29 for 7-10 days. Since presentation on 10/27 P's has been doing well. Eating at least 50% of normal caloric intake. Normal mentation

Current Medications: Tresederm started on 9/29 for 7-10 days
Lab Results: Albumin 4 (2.6-3.9), ALT 1077 (27-158), AST 381 (16-67), ALP 425 (15-59), T Bil 2.5 (0.0-0.3), Bili unconjugated 1.4 (0-0.2), Bili Conjugated 1.1 (0.0-0.2), Cholesterol 444 (91-305), WBC 3.3 (3.9-19) mild neutrophilia and lymphopenia. USG 1.056 with 2+ protein and no other significant findings
Date of Previous IntraPet Ultrasound: No previous.

Sedation: Dexmedetomidine 0.5mg/ml 0.13ml IV with butorphanol 0.13ml IV.

Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System
The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The right kidney measures 4.13 cm. The left kidney measures 4.08 cm.

Adrenal Glands
The right adrenal gland is normal in size (0.30 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.38 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen
Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver
Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is mildly hyperechoic and mildly thick, measuring 0.29 cm thick. The cystic and common bile duct have a thick hyperechoic wall and are tortuous in appearance but not pathologically dilated. There is no evidence of effusion or inflammation.

Gastrointestinal
The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas
Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted. Some enhanced peripancreatic hyperechoic mesenteric fat is noted, suggestive of an acute on chronic process.

Free Abdomen
There is no evidence of free peritoneal effusion noted in these images.

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

PRIMARY FINDINGS

- **Hyperechoic hepatomegaly –** This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.

- **Gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili. The thick hyperechoic wall and tortuous cystic and common bile duct, while not pathological distended, suggest cholangitis, either acute ongoing or potentially resolved.

- Chronic active pancreatitis with a suspected acute flare up based on reactive peripancreatic mesenteric fat.

- **Reactive mesenteric lymph nodes –** infiltrative neoplastic disease cannot be ruled out but is considered less likely.

- **Coarse splenomegaly –** can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.

SECONDARY FINDINGS

- Age related kidney changes

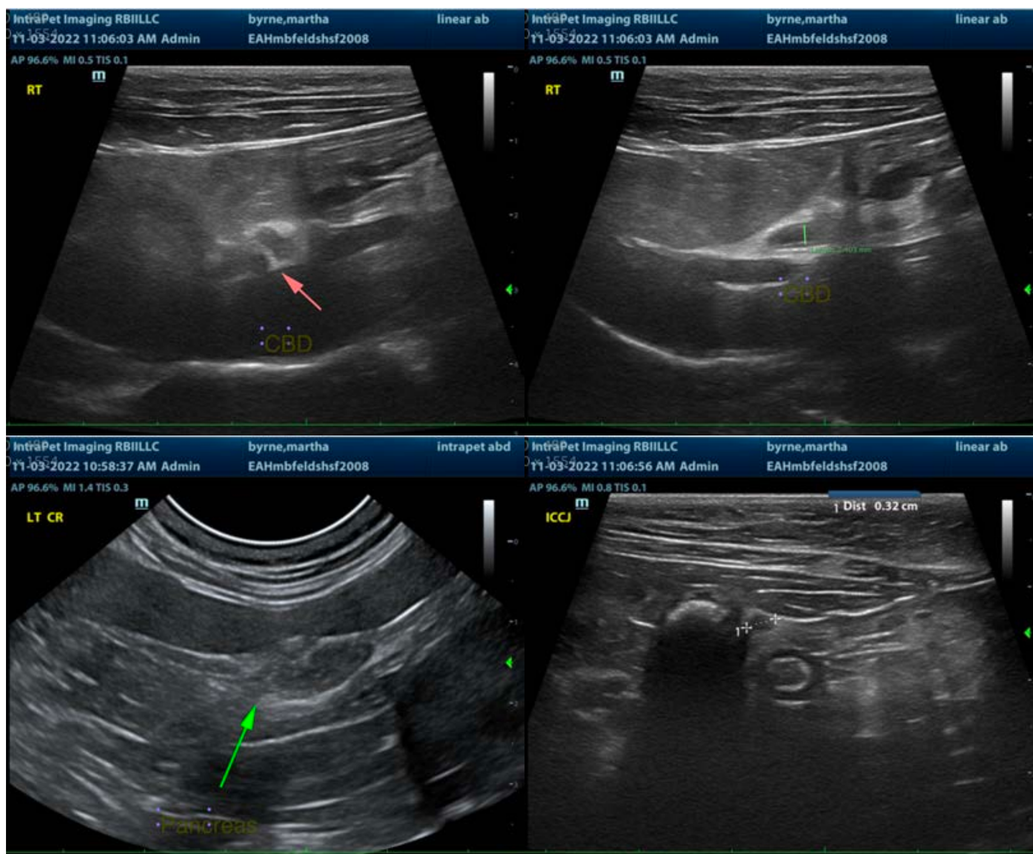
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

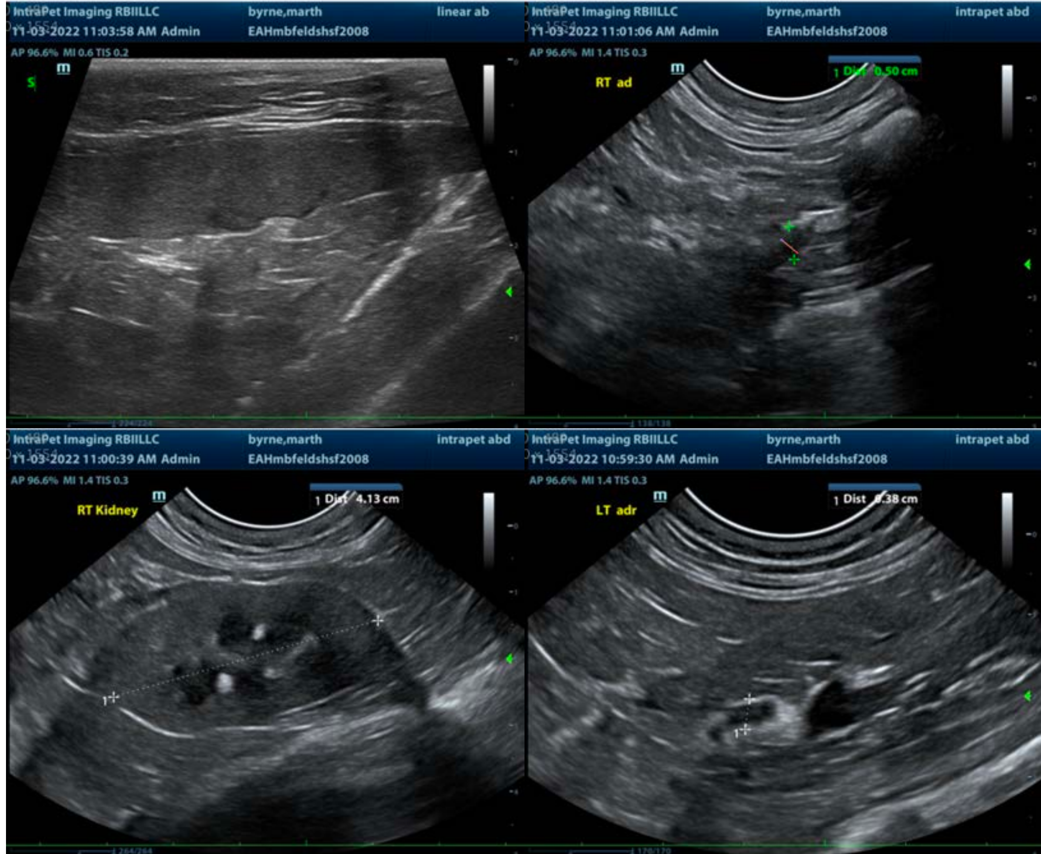
This patient's history, laboratory value changes, and ultrasound changes are consistent with possible "Triaditis" or potentially active or resolving cholangitis/cholangiohepatitis and pancreatitis with secondary hepatic lipidosis.

If not recently evaluated, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function, as concurrent gastrointestinal disease can be present without significant ultrasound changes.

In the meantime, Treatment recommendations include fluid therapy, anti-emetics, gastroprotectants, hepatic nutraceuticals such as ursodiol and/or Denamarin, and broad spectrum antibiotics. Nutritional support is critical to prevent/manage concurrent hepatic lipidosis, so appetite stimulants and/or, if indicated, feeding tube placement is also recommended.

If the patient doesn't continue to clinically improve, and/or laboratory values don't improve and/or progress, a fine needle aspirate of the liver +/- spleen is recommended if patient's coagulation status is appropriate.

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RT ad
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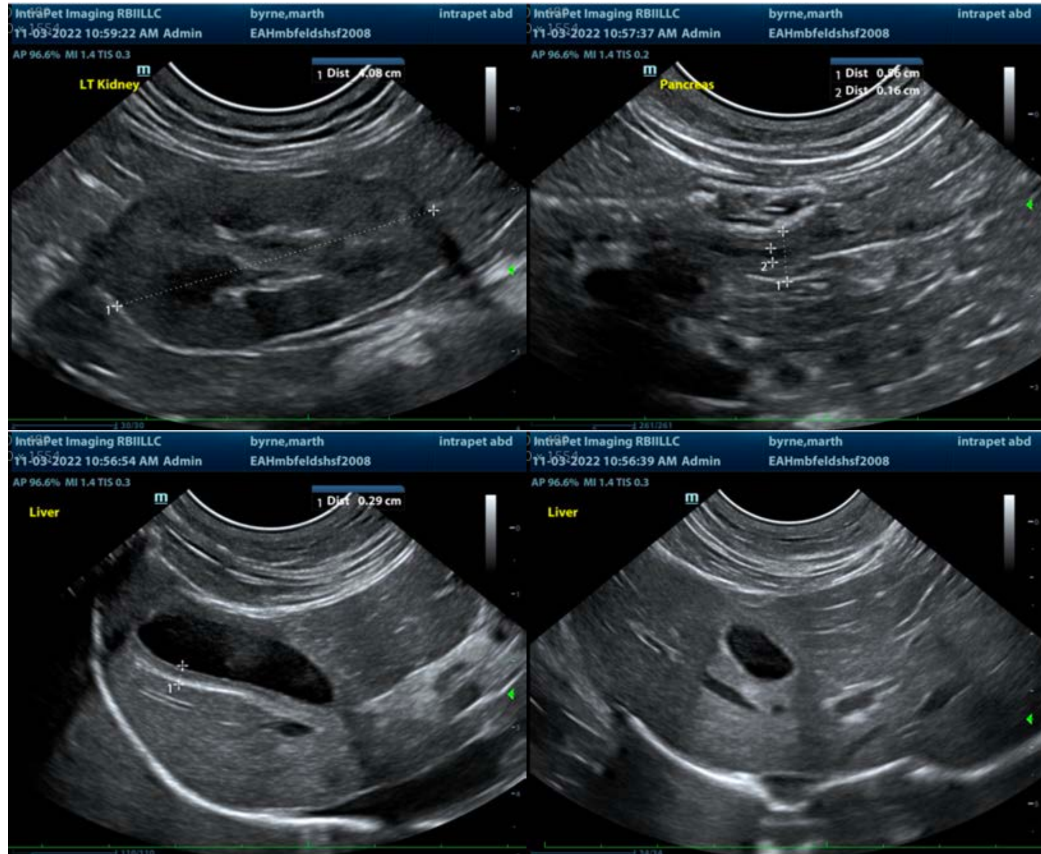

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com