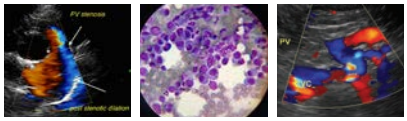
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

7/5/23

PATIENT

Charlie Howachyn

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

7/1/09

WEIGHT

19.5 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Companion Animal Care Center

REFERRING VET

Dr. Johnston

INVOICE

43773

PRESENTING CLINICAL SIGNS

Presented anorexic, vomiting, decreased BM, and febrile. rads revealed a large mass effect in cranial abdomen. Submitted rads for consult- results suspected for fatty mass but nodule noted in left lung.

Lab Results: Attached; please note on view of blood film, lymphocytosis in not evident.
Radiographs: Attached; AIS radiology report included. Chest rads today.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

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 (4.22 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 (4.03 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.52 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 0.44 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 (0.83 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 borderline large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. There are small pinpoint mineralizations visualized within the hepatic parenchyma, most consistent with mineralizations within the intrahepatic bile ducts. There is sandy mineralization and mild bile duct dilation noted as well. No focal nodules or cystic lesions are observed.

The gallbladder is mildly distended with largely anechoic intraluminal material. In the dependent portion of the gallbladder there is some mineralized sandy debris with no evidence of significant gallbladder wall thickening. The cystic and common bile duct appear somewhat tortuous and dilated with occasional intraluminal mineralizations. One such cystoliths measures 0.39 cm. This dilation persists to the point of the abnormal pancreas.

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 0.20 cm. Duodenum wall measures 0.30 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with severe pancreatitis.

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. There is severely reactive mesentery around the pancreas.

The falciform fat is extensive and prominent measuring over 4.5 cm in thickness over the liver.

PRIMARY FINDINGS

- Large, hypoechoic, irregular pancreas with surrounding severe peripancreatic inflammation – The pancreatic changes are most consistent with 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.

- Mildly heterogeneous liver with mineralization in the intrahepatic bile ducts – 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. The mineralization is most consistent with chronic inflammation.

- Mineralization visualized within the intra- and extrahepatic bile ducts as well as moderate bile duct dilation – Findings are most consistent with cholecystitis, choleliths, and a likely partial post-hepatic obstruction (due to the pancreas).

- 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

- Pronounced large volume of falciform fat – The significance of this is currently unclear.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

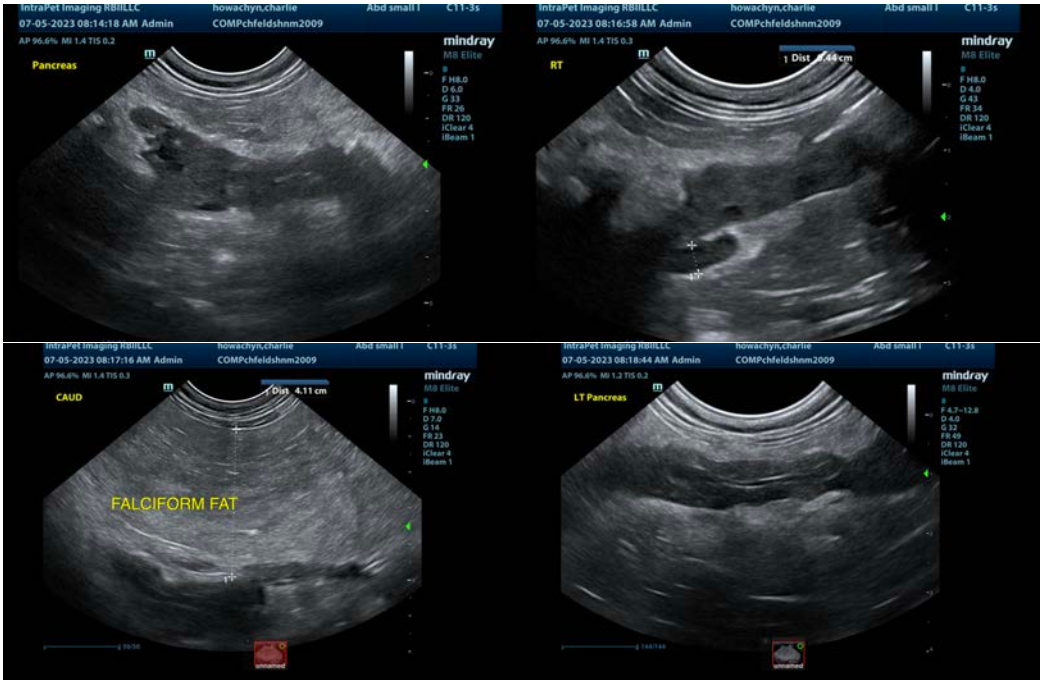
Both limbs of the pancreas are severely inflamed and hypoechoic. These findings are most consistent with severe pancreatitis. Additionally, there are intrahepatic and extrahepatic choleliths and moderate bile duct dilation, possibly consistent with chronic cholecystitis, possibly complicated by the current pancreatitis and a partial post-hepatic obstruction(?).

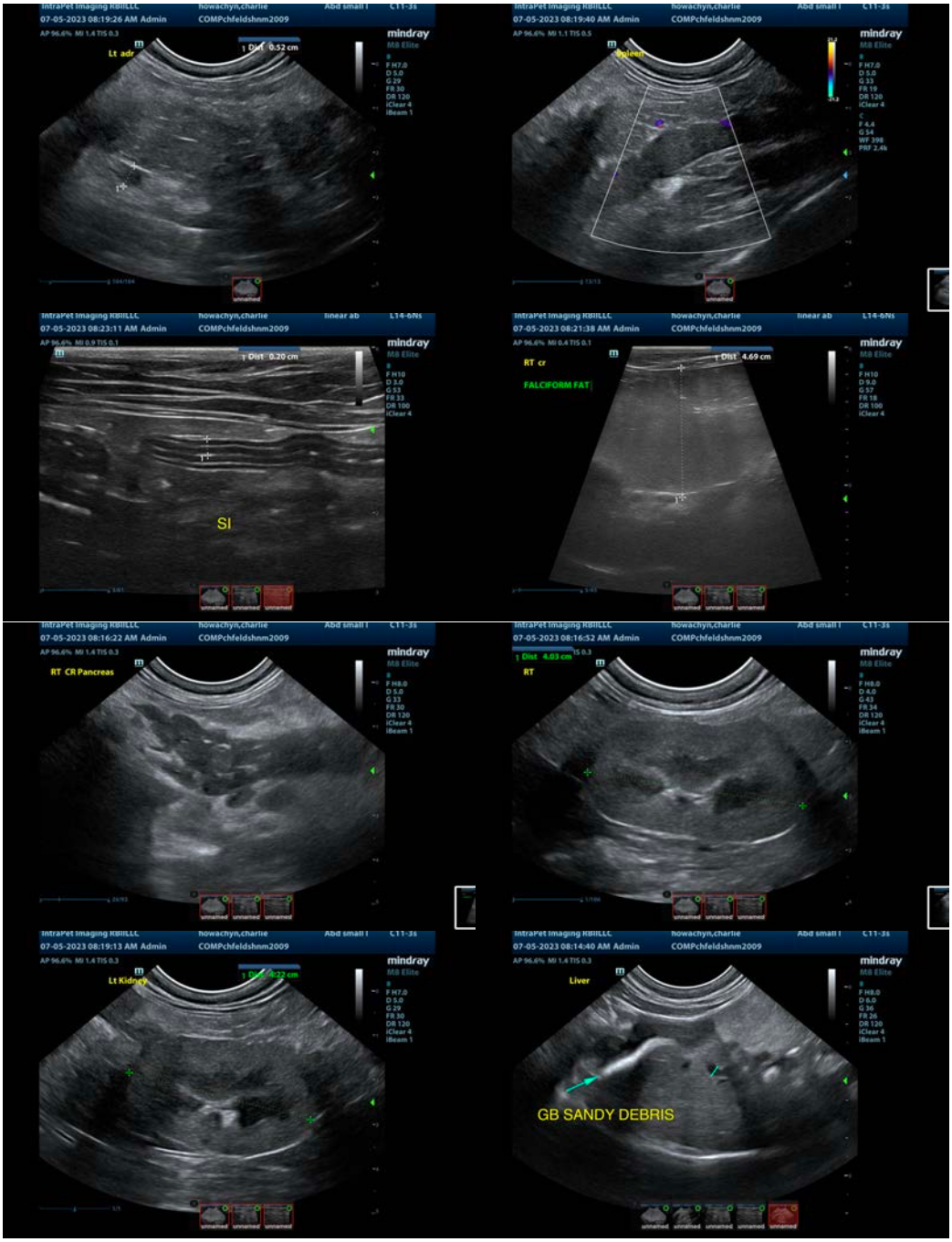
The muscularis layer of the small intestine is somewhat prominent. This can be a normal finding in some older cats but could be an indicator of a concurrent enteropathy. This combined with the other findings could be consistent with smoldering Triaditis.

Recommend aggressive treatment for pancreatitis. Recommend current bloodwork to evaluate liver values and the possible need for Ursodiol. Recommend continued monitoring of the biliary tract, pancreas, etc., as biopsies of the GI tract, pancreas, and liver may be warranted in the future, once this bout of acute pancreatic inflammation has improved.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

The falciform fat is greatly enlarged in this individual. I suspect this is an incidental finding at this time. If it is felt that this is clinically relevant (causing difficulty with compression, etc.), this could possibly be surgically removed.

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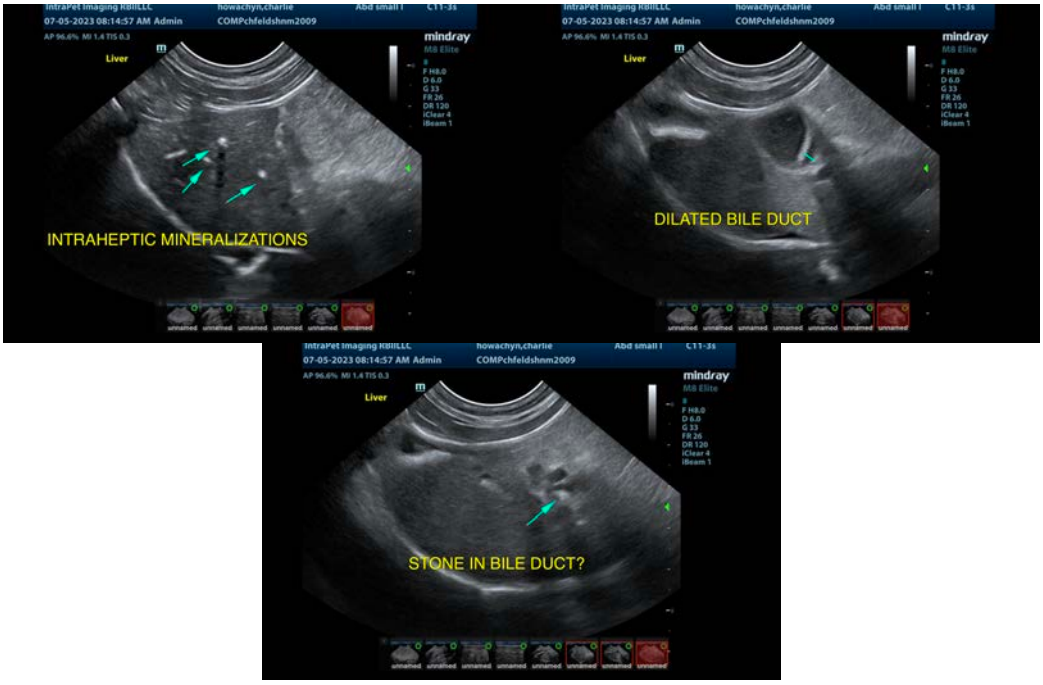

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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