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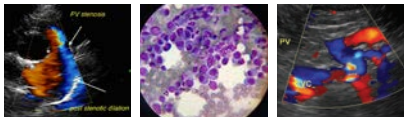

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

10/18/22

PATIENT

Verdant Kirchner

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

7/30/15

WEIGHT

5.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Greenbrier Vet Clinic

REFERRING VET

Dr. Whitfield

INVOICE

42131

PRESENTING CLINICAL SIGNS

Mild weight loss, somewhat decreased appetite. Otherwise, patient is doing well and appears healthy on exam.

Current Medications: Starting on 10/14/22: Clavamox 13.75mg/kg BID, Denamarin.
Lab Results: ALT 940, Glucose 175.
Date of Previous IntraPet Ultrasound: No previous.
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 anechoic urine. The Bladder wall is diffusely mildly thickened (.25CM), and the mucosa is mildly irregular. The trigone, ureteral papillae, and visible urethra (to a depth of 2cm) appear normal with no evidence of severe mucosal irregularities, masses or cystic calculi. Findings are most consistent with bacterial cystitis or lack of urine distension. Recommend urinalysis and culture.

The left kidney is normal in size (3.06) but very irregular in shape, likely due to previous infarcts, with pyelectasia (.29cm). 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 nephroliths or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (2.6 cm) but very irregular in shape, likely due to previous infarcts, with pyelectasia at 0.13 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 nephroliths or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.45 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 0.41 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 (0.79 cm in width at the level of the hilus), 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, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The intrahepatic bile ducts appear somewhat prominent with shadowing calculi visualized. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder does not appear significantly thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris and shadowing echogenic debris, consistent with biliary calculi. The proximal bile duct appears to have sandy debris within it. The distal bile duct is visualized and measures at 0.23 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 0.19 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. Prominent pancreatic duct noted at 0.22 cm.

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.

ULTRASONOGRAPHIC FINDINGS

- Irregular, mildly thickened urinary bladder wall – The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

- Irregularity and decreased corticomedullary distinction in both kidneys with mild pyelectasia and infarcts – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s)could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Heterogeneous liver with intrahepatic biliary stones – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.

- Moderate gallbladder sludge and biliary stones – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting. Incidental gall bladder debris is less common in cats.

- Mildly prominent muscularis 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

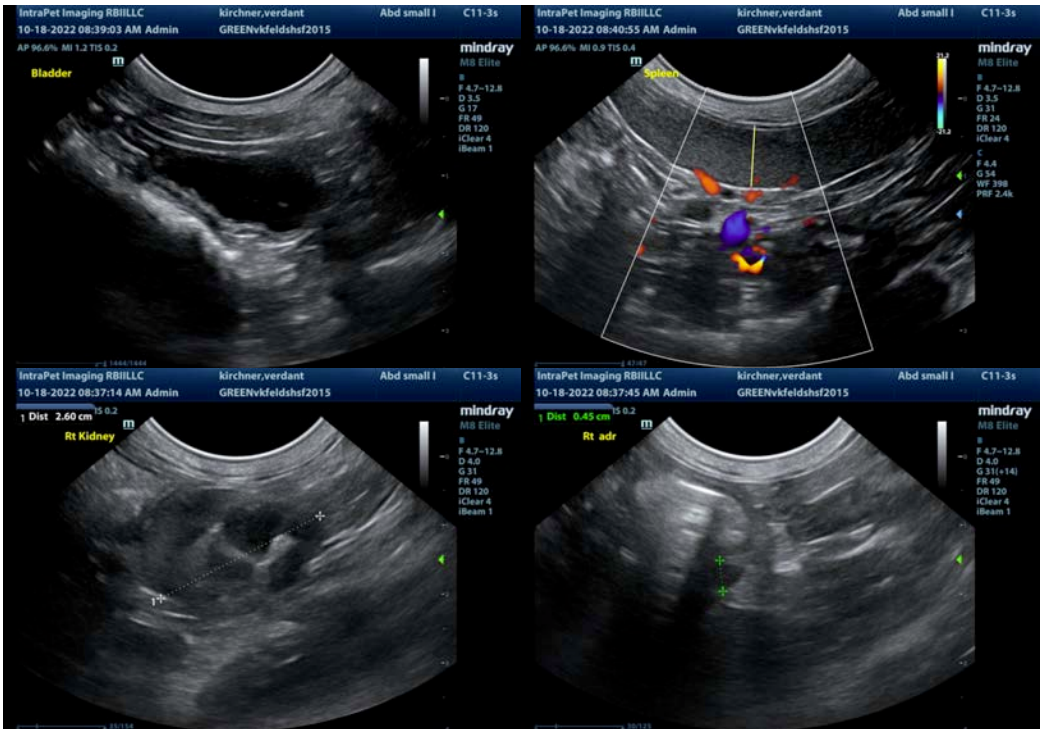
The liver is somewhat heterogeneous with stones visualized within the gallbladder and intrahepatic bile ducts. A severe focal obstruction is not observed. Recommend evaluation for underlying hepatic disease with a fine needle aspirate +/- biopsy if coagulation parameters will allow. Additionally, recommend Ursodiol therapy and antibiotics for possible cholangiohepatitis. Continued monitoring of the biliary tract and liver enzymes is recommended. In some cats, intrahepatic biliary stones can be a consequence of chronic inflammation.

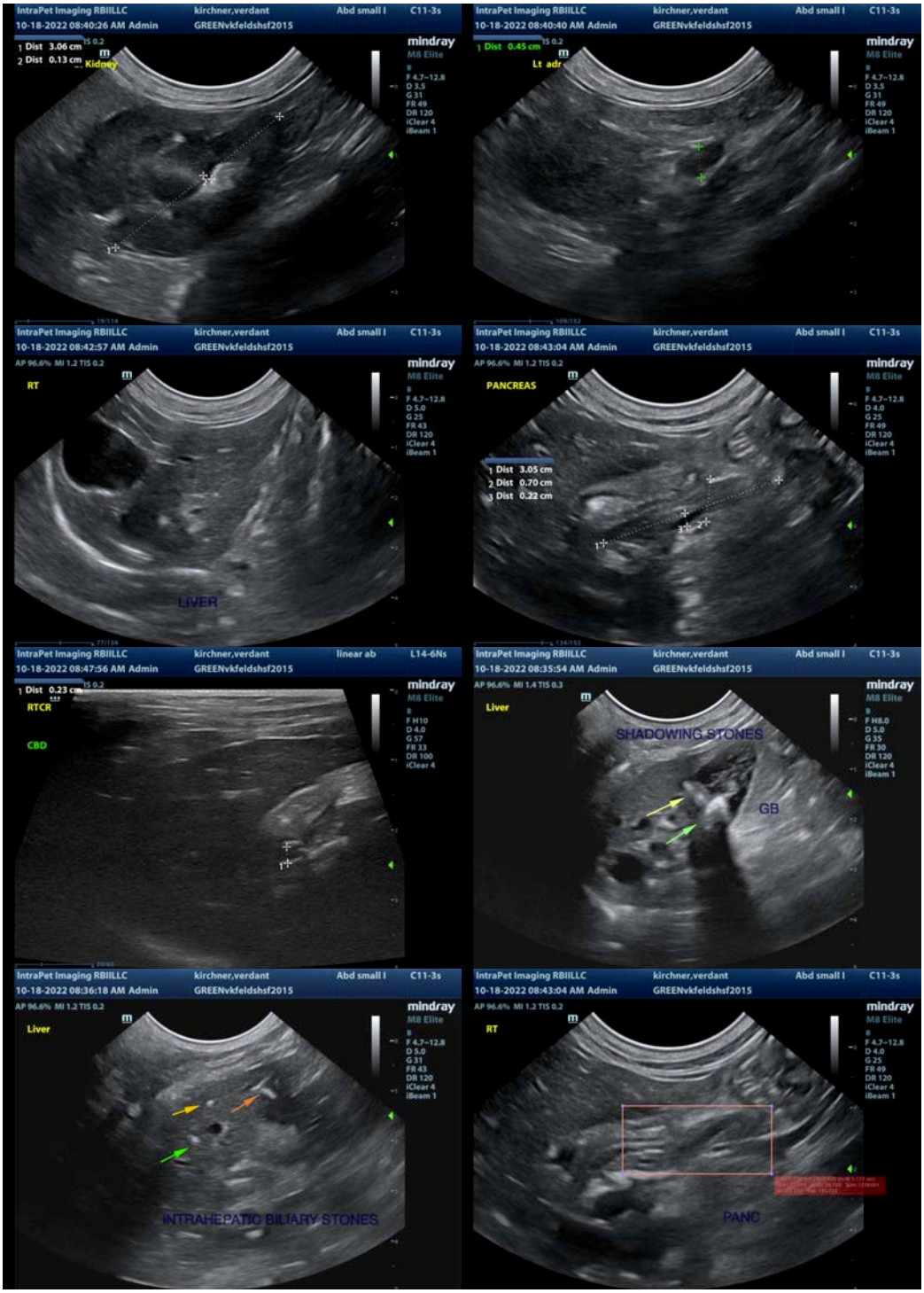
Additionally, there are pancreatic changes observed, and possibly mild changes to the small intestine. This could indicate some degree of Triaditis. Recommend a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to get further information regarding the pancreas and small intestine.

Both kidneys appear very irregular and have changes consistent with chronic progressive renal disease, infarction, etc. Recommend a blood pressure evaluation, urinalysis and culture.

The urinary bladder is irregular and slightly thickened. This could be partly due to lack of urine distention, but a culture and urinalysis are recommended as well as continued monitoring. These changes are most consistent with underlying cystitis, but neoplastic change cannot be completely ruled out at this time.

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

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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.

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