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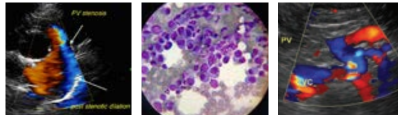

SonoPath

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DATE

10/13/21

PATIENT

Sidney Olvera

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

4/8/14

WEIGHT

10.94 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Westminster VH

REFERRING VET

Dr. Hall

INVOICE

26250

PRESENTING CLINICAL SIGNS

Pet has a history of cholecystitis with cholecystectomy in 2018. Presented on 10/5/21 for possible pain. Two days prior to appointment, owner found patient meowing a lot, seemed to have scooted his rear end nearby and left poop smears. Patient eventually passed a large stool and seemed very uncomfortable. Continued posturing and produced some small liquid drips. Yesterday seemed back to his normal self. Owner was unsure whether patient has had a bowel movement since but does seem much more comfortable now. Still eating/drinking and no vomiting. Urination is normal - no straining.
On PE mm slightly pale and icteric; pet was very tense upon abdominal palpation; difficult to evaluate whether d/t stress vs. discomfort. No stool palpated in descending colon. No masses or organomegaly appreciated. Radiographs were taken. No medications given at the time. As of 10/8/21 pet continues to defecate outside of the box.

Current Medications: Ursodiol 50mg SID started 2018.
Lab Results: 9/27/21: CBC: decreased RBCs (4.5M); decreased hematocrit 27.2%; decreased hemoglobin (7.8g/dL); elevated MCV and MCH; elevated reticulocytes (252K); elevated lymphocytes (6.9K); slight polychromasia. Chemistry: Elevated total bilirubin (1.6mg/dL); elevated unconjugated bilirubin (1.1mg/dL) and elevated conjugated bilirubin (0.5mg/dL). These values are indicative of stable disease control for pet.
Radiographs: Radiographs 10/5/21: Mild hepatomegaly. This may be evidence of diffuse hepatopathy-the significance of this finding should be interpreted in association with the liver enzyme values.
Date of Previous IntraPet Ultrasound: 9-4-2019.
Sedation: Gabapentin 100mg PO upon arrival to the hospital and IM sedation required for AUS
Stat Report: not requested

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 (3.71 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 (3.86 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 0.31 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 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.

Spleen

The spleen is normal to slightly enlarged at 1.27 cm (less than 1.0 cm is considered normal). The spleen echotexture is heterogenous and mildly mottled, 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 large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous small mineralizations visualized with the hepatic parenchyma, most consistent with intrahepatic biliary stones. There is no overt dilation of the biliary tract, and the gallbladder has been surgically removed. No focal nodules or cystic lesions observed.

The gallbladder was surgically removed in 2018. The gallbladder fossa appears normal.

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. Jejunum wall measured 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. Pancreatic duct measures 0.19 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.

PRIMARY FINDINGS

- Large, heterogeneous liver with intrahepatic biliary stones – 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.

- Large, mildly 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. With the reported anemia, this could be consistent with extramedullary hematopoiesis, but round cell neoplasia cannot be excluded.

SECONDARY FINDINGS

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

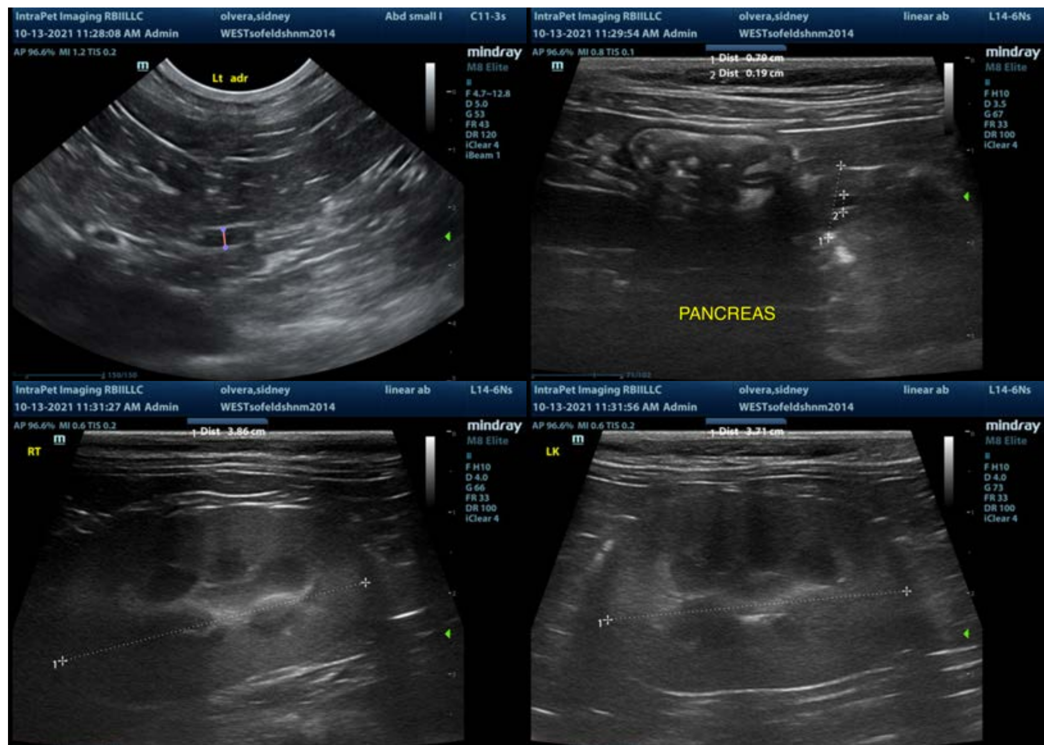
- Gallbladder removed surgically in 2018

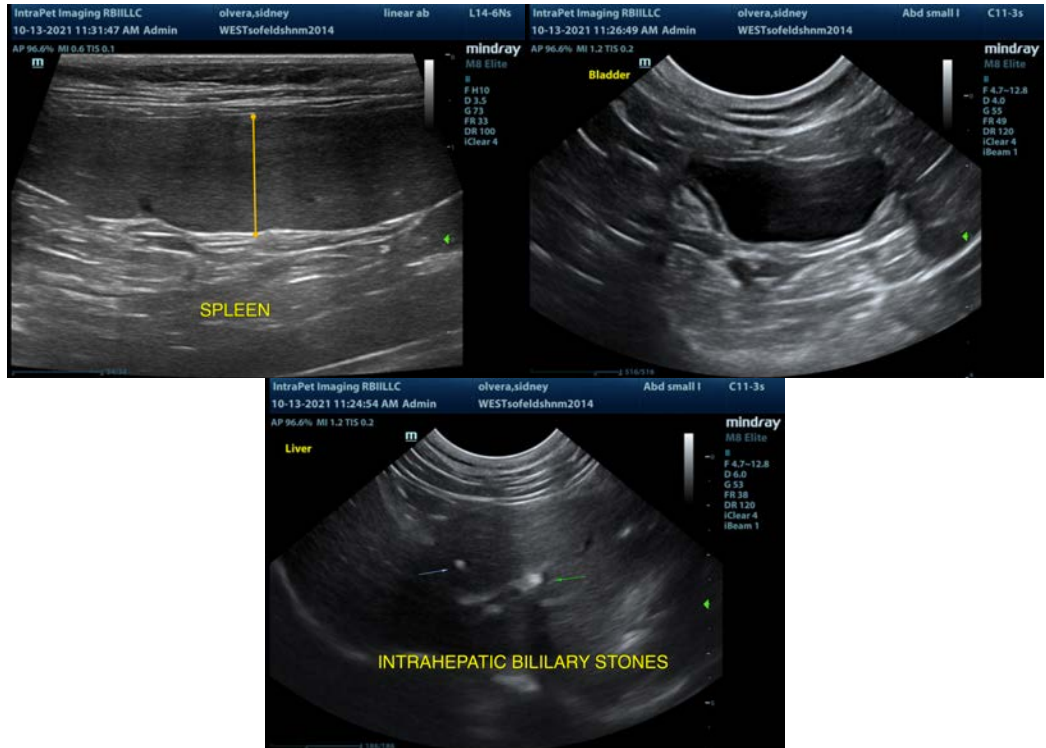
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The ultrasonographic findings and history most likely represent a chronic cholangiohepatitis with some degree of intrahepatic biliary obstruction. The lack of gallbladder increases the risk for ascending cholangitis. Consider a fine needle aspirate of the liver and treatment with antibiotics, Ursodiol, Denamarin, etc. (already doing some of this). Consider a liver biopsy if there is no response to treatment. Additionally, there is a possibility of round cell neoplasia, so fine needle aspirate would be helpful.

The spleen is enlarged. This could be consistent with infiltrative disease or with extramedullary hematopoiesis due to the regenerative anemia reported.

Lastly, there is the possibility of hemolysis playing a role. Consider vector borne disease testing, and consider a pathologist review of the CBC to evaluate the lymphocytosis reported and look for any evidence of atypical lymphocytes, as this could represent an emerging round cell neoplasia. Recommend 3-view thoracic radiographs.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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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