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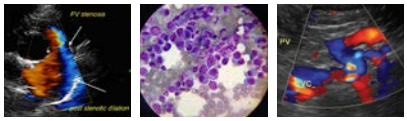

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DATE

12/16/21

PATIENT

Rascal Pinnick

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

11/12/09

WEIGHT

8.5 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

North Laurel AH

REFERRING VET

Dr. Cohn

INVOICE

33516

PRESENTING CLINICAL SIGNS

History: Hyporexia, wt loss palpable abdominal mass.

Lab Results: ALT-91, GGT- 14, WBC 30,000,21, 600 Neutrophilia, U/P:C 1.0, RBC 6.24, HCT 27%, HGB 8.4.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Gabapentin.
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 (4.82 cm) with small non-obstructive nephroliths. 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.9 cm) with small non-obstructive nephroliths. 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.33 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 subjectively normal in size (0.82 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 large in size and very irregular in shape. It is of mixed echogenicity with irregular peripheral nodules. There are numerous ill-defined, hyperechoic, sometimes partially cystic ill-defined mass effects within the hepatic parenchyma. These largest areas extend the liver significantly caudally, displacing the spleen and the kidneys caudally. They measure approximately 4.8 cm x 2.7 cm, and 4.3 cm x 3.2 cm and are visualized from both sides of the abdomen. There are no large areas of normal hepatic tissue visualized. Additionally, the bile duct appears dilated (see description under gallbladder).

The gallbladder lumen is significantly distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts both appear tortuous and dilated with evidence of some pinpoint mineralizations consistent with shadowing stones visualized mid bile duct, measuring 0.44 cm and 0.38 cm. The dilation extends beyond these stones, and no focal area of obstruction is visualized. The bile duct measures 0.47 cm in diameter.

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 0.22 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 hypoechoic as 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 0.33 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 increased echogenicity in the area around the liver.

ULTRASONOGRAPHIC FINDINGS

- Large, irregular liver with numerous ill-defined, hyperechoic masses and nodules – 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. Based on the mass-like quality of these parenchymal abnormalities, neoplasia is of high concern.

- Tortuous, dilated bile duct with non-obstructive stones visualized – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).

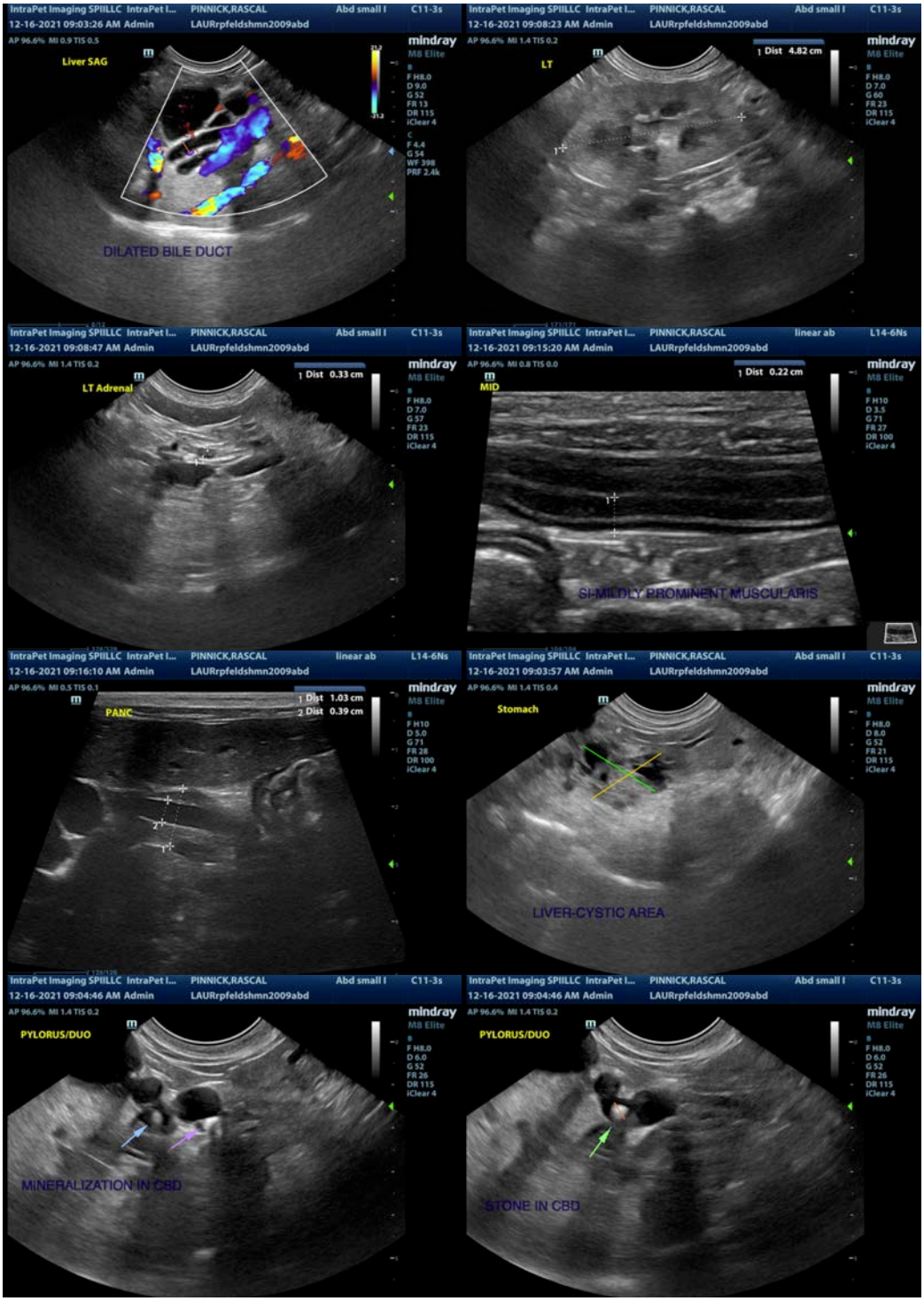
- Prominent, hypoechoic pancreas with dilated pancreatic duct – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

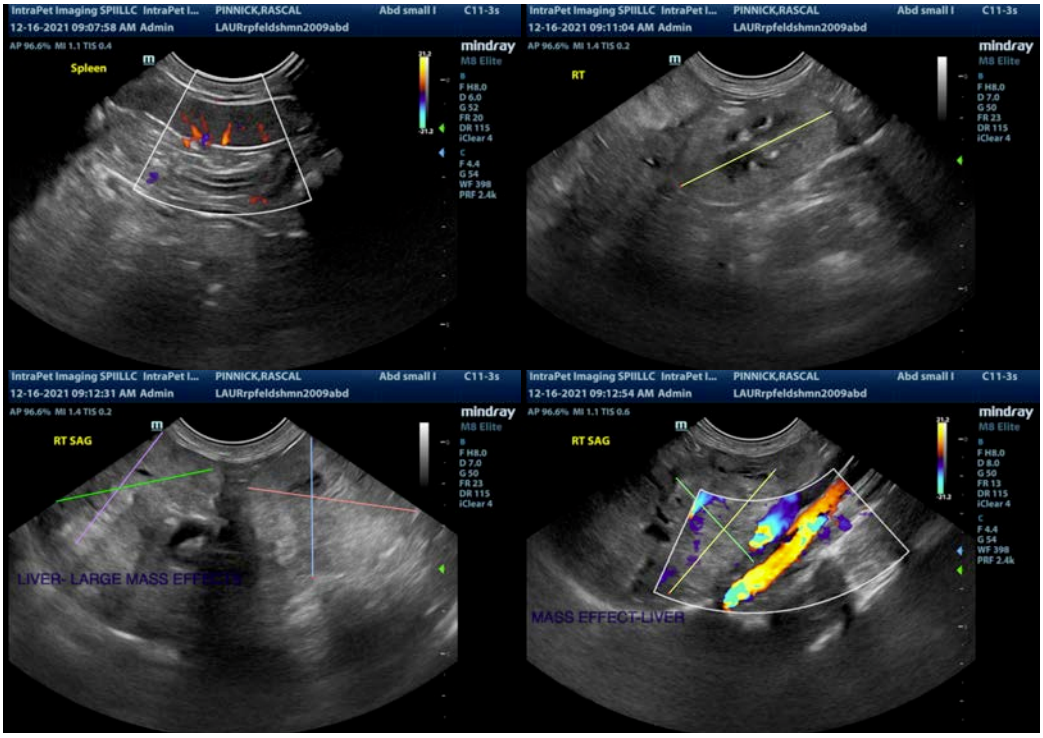
- Prominent muscularis layer to the small intestine – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes observed in the liver are very concerning for a possible neoplastic process, although benign lesions cannot be excluded. Based on the ultrasound images, there is concern that these lesions may not be surgically resectable, as they are fairly diffuse. Consider a fine needle aspirate of the liver. If that is not diagnostic, you could consider a liver biopsy +/- advanced imaging (contrast CT scan) of the abdomen to obtain a more global view for possible surgical purposes. Recommend 3-view thoracic radiographs.

Both the pancreas and the bile duct appear prominent and possibly partially obstructed. This could be in part due to the abnormal hepatic tissue. CT scan would offer better evaluation of these structures. Recommend continued monitoring of liver values, and monitor the bile duct for progressive dilation.





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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