

**DATE PRESENTING CLINICAL SIGNS**

12/8/21 History: weight loss for the past year, vomiting has increased in the past month, eating but not great; increased liver values (ALT, AST, alk phosphatase, total bilirubin).

PATIENT

Sweet Dee Quinteros

Current Medications: Denamarin for cats for the past week, Clavamox 62.5 mg/ml o giving 0.6 mL by mouth twice a day (every 12 hours). for the past week.

Lab Results: ALT 541, Alk Phos 743, bili 10.7, AST 169, WBC 19.1 k, neutro 15089, no bands, rest of cbc wnl, t4 1.9, felv/fiv both neg. Attached separately.

SPECIES

Feline

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

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.

AGE

7/11/10

The left kidney has a normal shape and size (4.27 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.

WEIGHT

6.5 Pounds

The right kidney has a normal shape and size (3.6 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.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal in size measuring 0.41 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.

IMAGING PERFORMED BY

Stephanie Pearce
RDMS, RVT

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.

HOSPITAL NAME

Pet Vet of Clarksville

Spleen

The spleen is large in size. The spleen echotexture is heterogenous and severely mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are diffuse small hypoechoic nodules throughout the splenic parenchyma, causing a distinct mottling effect as well as occasional hyperechoic foci measuring approximately 0.5 cm.

REFERRING VET

Dr. Martof

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 diffuse ill-defined, hypoechoic foci throughout the hepatic parenchyma.

INVOICE

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The gallbladder lumen is minimally distended. The wall of the gall bladder appears somewhat thickened (0.32 cm). The bile duct is mildly dilated and tortuous with a thickened wall.

Gastrointestinal

The stomach is moderately distended with shadowing luminal content. This could be consistent with ingesta or foreign material. 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 measured 0.25 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. Dilated pancreatic duct measures 0.23 cm.

Free Abdomen

There is a small amount of free anechoic fluid. There is a diffuse mesenteric lymphadenopathy present with mesenteric lymph nodes visualized measuring 0.53 cm, 0.8 cm, and a larger node measuring 1.78 cm x 1.01 cm. The mesentery appears diffusely hyperechoic.

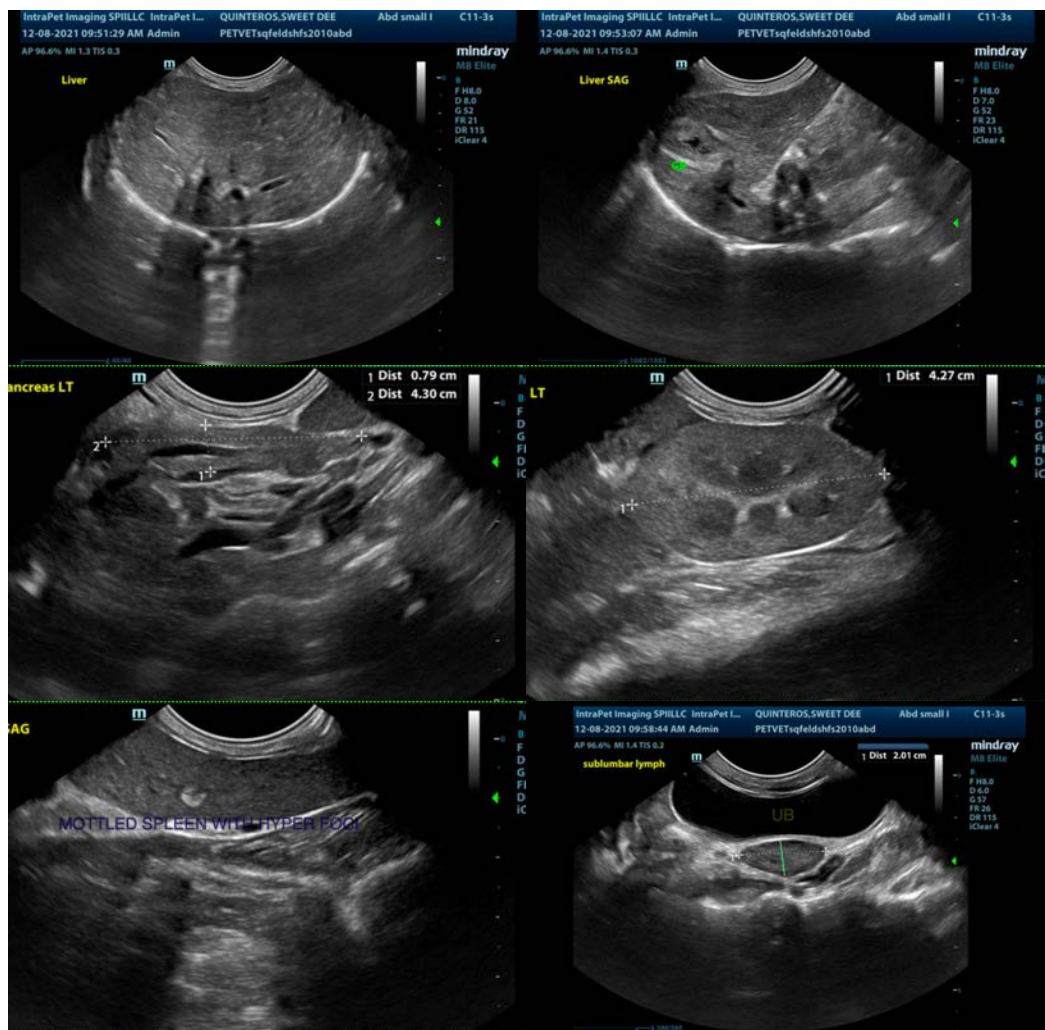
ULTRASONOGRAPHIC FINDINGS

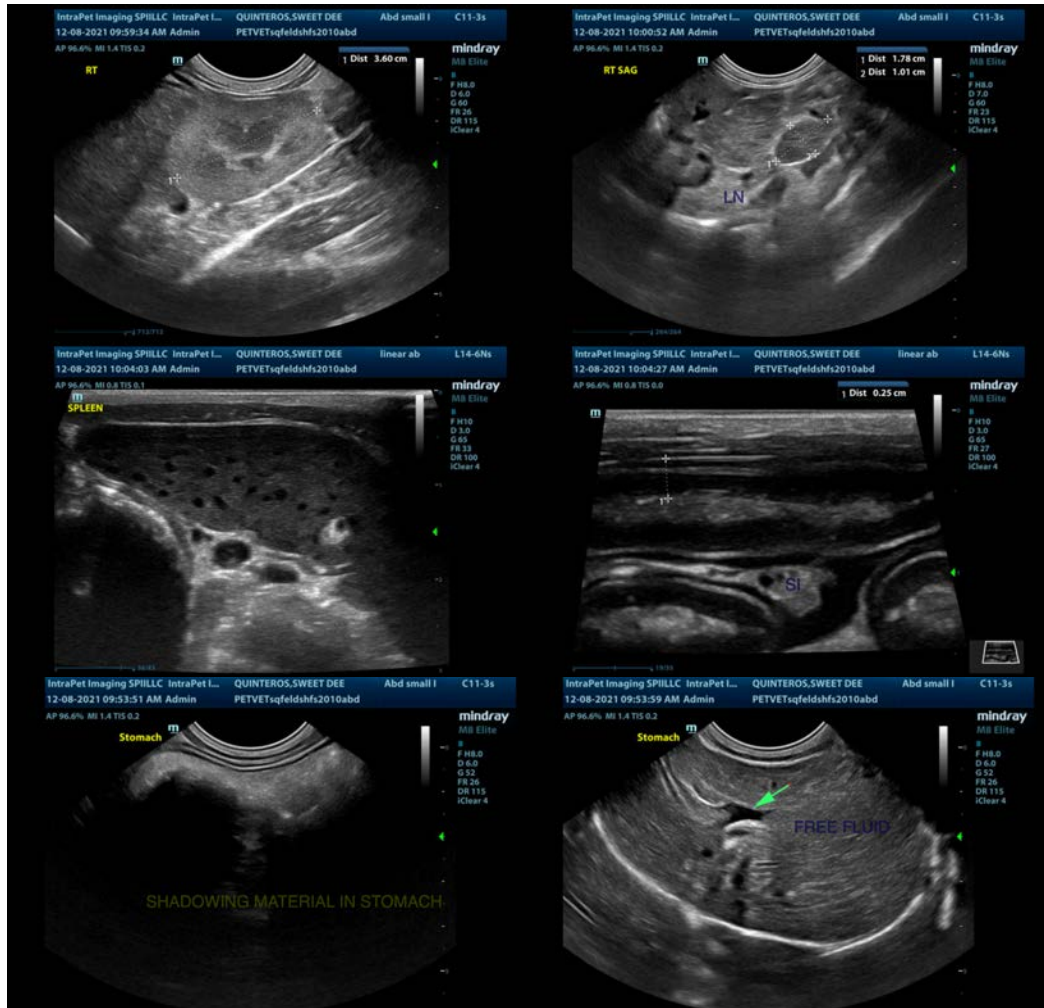
- Severely mottled spleen with hyperechoic foci – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Heterogeneous liver with ill-defined hyperechoic 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.
- Prominent, hypoechoic pancreas with dilated pancreatic duct – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Thickened gallbladder wall with thickened, dilated common bile duct – most consistent with cholecystitis or infiltrative disease. No evidence of an obstruction is visualized.
- Shadowing material within the gastric lumen – If this patient was adequately fasted, there is concern for possible foreign material or persistent ingesta. Correlate with abdominal radiographs.
- Thickened 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.
- Diffuse mesenteric lymphadenopathy – Possible differentials include inflammation, infection, or neoplastic change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are diffuse visible changes within the abdominal cavity. Most pronounced in the splenic mottling and changes involving the gallbladder, bile duct and liver. These changes combined with the mesenteric lymphadenopathy increase the concern for possible underlying round cell neoplasia.

- Consider a fine needle aspirate of the spleen and liver.
- Recommend a GI panel to Texas A&M with a quantitative fPLI, TLI, cobalamin and folate to further evaluate the pancreatic and small bowel changes.
- Consider a fine needle aspirate of a mesenteric lymph node.
- Recommend 3-view thoracic radiographs to look for evidence of concurrent thoracic disease.
- Recommend therapy with antibiotics and Ursodiol, Denamarin, and a feeding tube (if necessary) for possible cholangiohepatitis.
- If this patient continued to decline, and aspirates are non-diagnostic, consider exploratory surgery to biopsy the liver, evaluate the biliary tract, place a feeding tube, biopsy the GI tract and spleen.





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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