

**DATE PRESENTING CLINICAL SIGNS**

12/3/21 History: Chronic vomiting/GI issues.

PATIENT Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
 Lina Allen Sedation: Sedated for dental procedure and AUS.
 Stat Report: Not requested.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Feline

BREED

DSH

SEX

Spayed Female

AGE

15/5/11

WEIGHT

11.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brillhart RDMS

HOSPITAL NAME

Homeward Bound VS

REFERRING VET

Dr. Vance

INVOICE

33256

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 (4.03 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 (3.75 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 0.44 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 0.37 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/large in size, measuring 1.2 cm in diameter at the hilus (normal is <1.0 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. This could be normal for a larger cat.

Liver

The liver is subjectively normal in size and hypoechoic. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris. The common bile duct appears somewhat tortuous and prominent, measuring 0.24 cm in diameter. No evidence of calculi or an obstruction is visualized.

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 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 normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional prominent mesenteric lymph nodes measuring 0.36 and 0.25 cm. The omentum is of normal uniform echogenicity.

PRIMARY FINDINGS

- 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.
- Hypoechoic, heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Mildly prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

SECONDARY FINDINGS

- Mildly enlarged spleen – This is of unknown significance, as it appears normal in shape and echogenicity and could be within normal limits for this individual.
- Prominent, dilated common bile duct – No obstruction is visualized. If liver enzymes are normal, this may be an incidental finding.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No significant focal lesions are observed on today's scan, and some of the abnormalities described could be normal for this individual. Of primary significance is the prominent muscularis layer to the small intestine. This can be an indicator of inflammation, but is a non-specific finding. Many cause for GI signs cannot be definitively diagnosed by ultrasound alone.

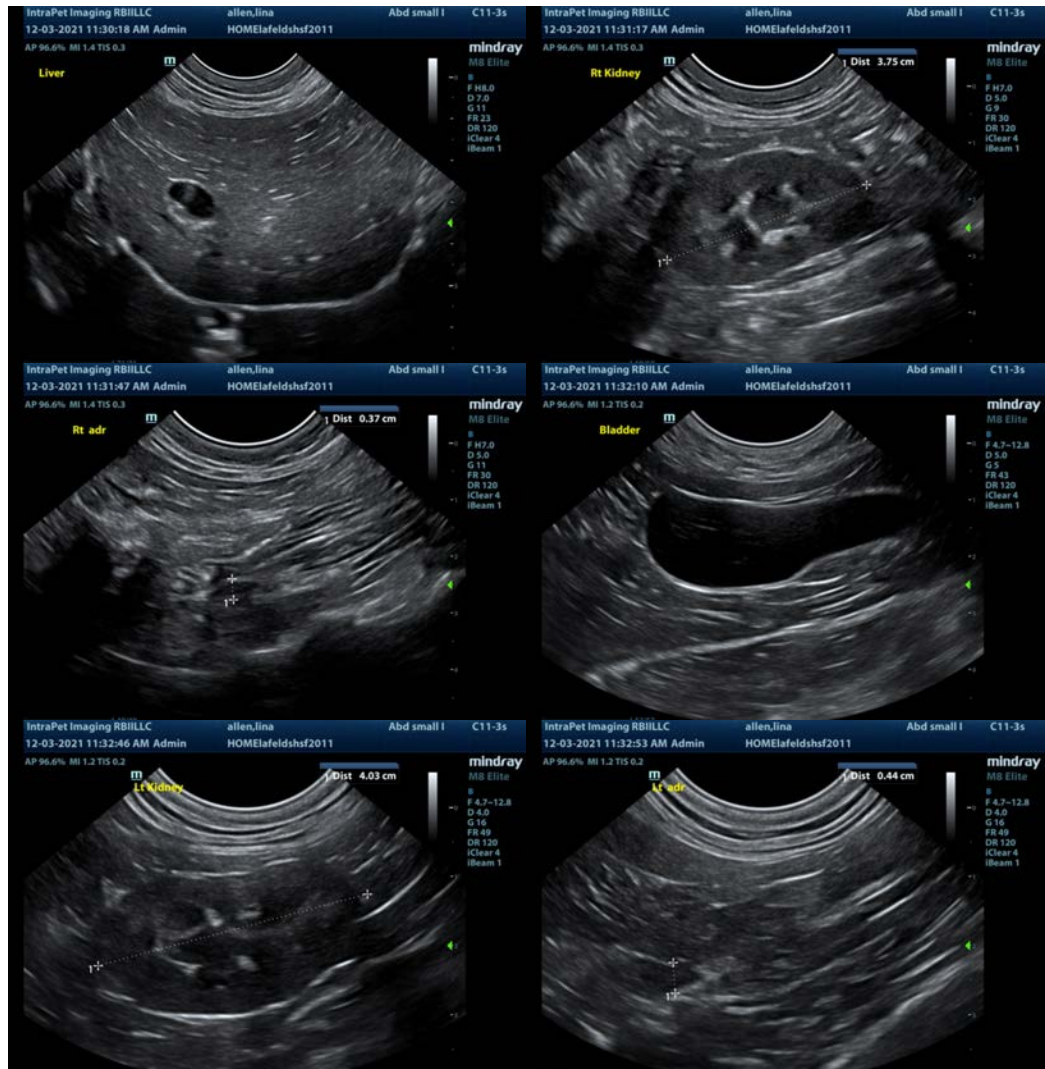
- Consider metabolic causes based on bloodwork, ACTH stim results, Liver function testing, Gi panel (TLI/PLI, folate, cobolamine.)

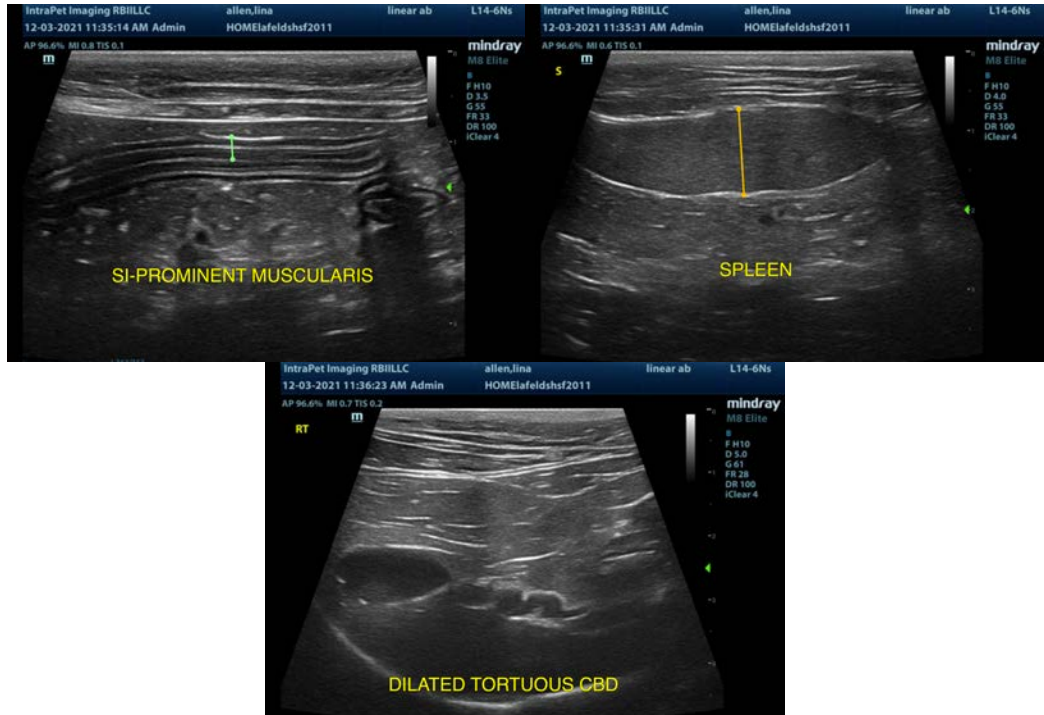
- Consider primary GI causes: Gi parasitism, dietary indiscretion, mild pancreatitis, bacterial dysbiosis, food allergy, IBD and less likely intestinal neoplasia.

In older pets with more chronic symptoms, I would most strongly consider food allergy, IBD, and less likely intestinal neoplasia.

- Consider a diet trial with a novel protein/hydrolyzed prescription diet.
- Consider a GI panel to Texas A&M with a quantitative PLI, TLI, cobalamin and folate to evaluate for pancreatic changes, cobalamin deficiency, exocrine pancreatic insufficiency, etc.
- Recommend probiotic therapy.
- If GI signs persist, consider obtaining GI biopsies.

If blood work is normal and there is no liver enzyme elevation, then the changes observed in the liver parenchyma and bile duct may be incidental findings. If liver enzyme elevations are present, recommend additional evaluation of the liver.





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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