

**DATE PRESENTING CLINICAL SIGNS**

7/28/22 Patient presents for chronic vomiting, somewhat responsive to Cerenia but vomiting continues.

**PATIENT** Current Medications: Cerenia 16mg- previously prescribed but not currently receiving.

Midnight Howard Lab Results: Generally NSF, no cause for vomiting identified.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****BREED** *Urinary System*

DSH

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

**SEX**

Spayed Female

The left kidney has a normal shape and size (4.19 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.

**AGE**

5/13/14

The right kidney has a normal shape and size (4.4 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**

20 Pounds

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.36 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 0.43 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.

**IMAGING PERFORMED BY**

Stephanie Warga  
RDMS, RVT

**Spleen**

The spleen is subjectively normal in size, 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.

**HOSPITAL NAME**

Everhart Vet Hospital

**Liver**

The liver is subjectively normal in size with smooth peripheral margins. The parenchyma is mildly hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

**REFERRING VET**

Dr. Hays

**INVOICE**

39935

The gallbladder lumen is moderately 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 are normal/not visible.

### ***Gastrointestinal***

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

Much of 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. Duodenum wall measured 0.44 cm. Jejunum wall measured 0.24 cm. Visualized peristalsis appears appropriate. The proximal duodenum appears somewhat fluid dilated with some shadowing material/ingesta. The wall in this region appears somewhat thickened.

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 prominent mesenteric lymph nodes in the mid abdomen measuring at 0.51, 0.36, and 0.41 cm. The omentum is generally of normal echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

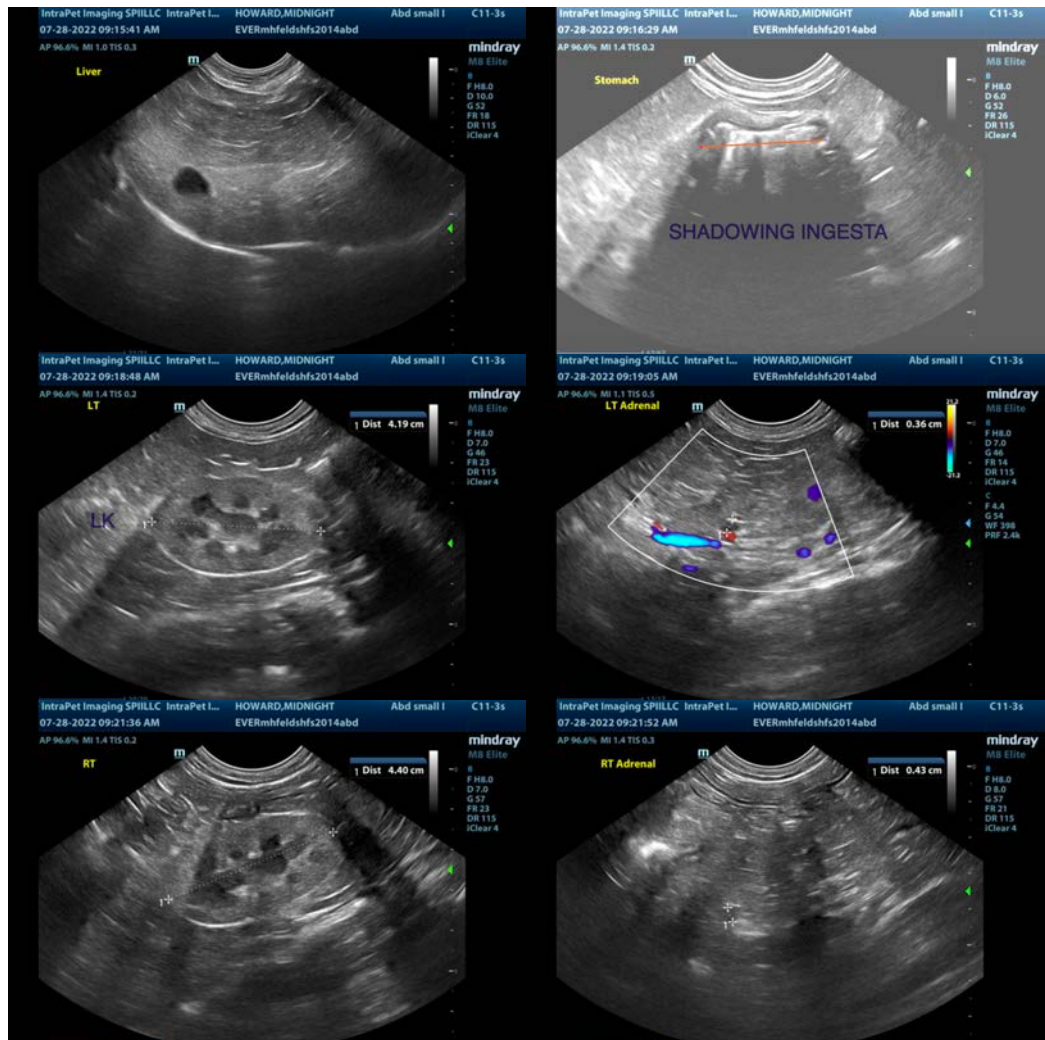
- Echogenic debris visualized within the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Mildly hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. This could also be fatty infiltration in an overweight cat.
- Hard shadowing material visualized within the gastric lumen – correlate with abdominal radiographs and feeding history. If the patient was adequately fasted, then consider the possibility of delayed gastric emptying or ingested foreign material.
- Prominent muscularis layer of 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.
- Ingesta dilated duodenum with thickened wall – correlate with feeding history. Wall thickening is somewhat subjective, and layering appears intact.
- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

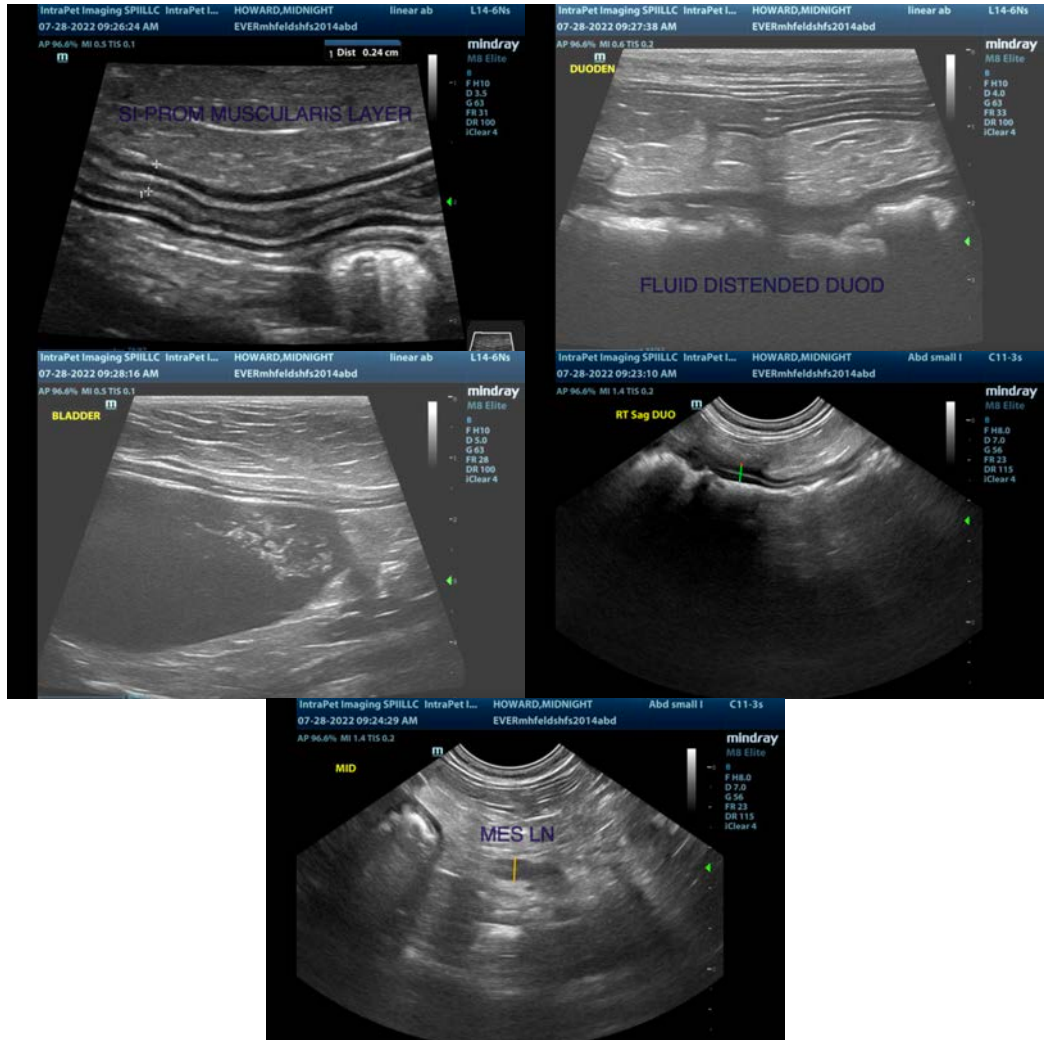
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No definitive focal mass lesions are visualized. There is some shadowing material visualized within the gastric lumen. This could represent ingesta, but if the patient is adequately fasted, consider radiographs/serial

radiographs to see if this material is passing through and to try and determine the nature. Additionally, the proximal duodenum appears mildly thickened. This could be secondary to inflammation, infiltrative disease, artifact, other. Typically in a patient with chronic vomiting, I would consider such differentials as food allergy/dietary hypersensitivity, chronic pancreatitis, GI parasitism, dysbiosis, IBD and less likely intestinal neoplasia.

- Recommend a novel protein/hydrolyzed protein prescription diet.
- Recommend a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- Recommend chronic probiotic therapy.
- If symptoms persist despite taking these measures, consider obtaining GI biopsies.





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.

Kathleen Sennello DVM,MS, Diplome ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopath.com