

**DATE PRESENTING CLINICAL SIGNS**

11/11/22 Vomiting, lethargic.

**PATIENT**

Eowyn Szimanski

Current Medications: Gabapentin 25mg BID, 100mg given today. Fluoxetine- has d/c due to vomiting, Inj Cerenia, Inj Dexamethasone.

Lab Results: Normal FPL and Pro BNP.

Radiographs: Loss of detail.

Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Feline

Sedation: Had DKT prior to ultrasound.

Stat Report: Declined at this time.

**BREED**

DSH

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

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

**AGE**

11/25/09

The left kidney has a normal shape and size (3.65 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

7.68 Pounds

The right kidney has a normal shape and size (3.67 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.37 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 Warga  
RDMS, RVT

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.

**HOSPITAL NAME**

Timonium AH

**Spleen**

The spleen is subjectively normal in size (0.59 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.

**REFERRING VET**

Dr. Stephens

**Liver**

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

**INVOICE**

42748

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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. There is a small amount of fluid visualized in the region of the pylorus, but no obstruction is 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 0.20 cm. Visualized peristalsis appears appropriate. There are some sections of small intestine that have relatively normal thickness and crisp wall layering with a prominent muscularis layer. There are other areas of small intestine that appear thickened with a significantly prominent muscularis layer and a hypoechoic wall with ill-defined layering. In these regions, the small intestine measures approximately 0.34 cm and there is hyperechoic mesenteric surrounding these areas of bowel.

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.

### ***Free Abdomen***

There is a scant amount of free fluid. There is an occasional prominent mesenteric lymph nodes. One measures 0.36 cm. The omentum is hyperechoic around the thickened bowel loops.

## **PRIMARY FINDINGS**

- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Significantly thickened areas of small intestine with prominent muscularis layer and surrounding inflammation – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia. A reduction in the detail of wall layering favors either severe intestinal disease or neoplastic infiltration. Biopsy is recommended.
- Prominent mesenteric lymph node – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- Scant free abdominal fluid

## **SECONDARY FINDINGS**

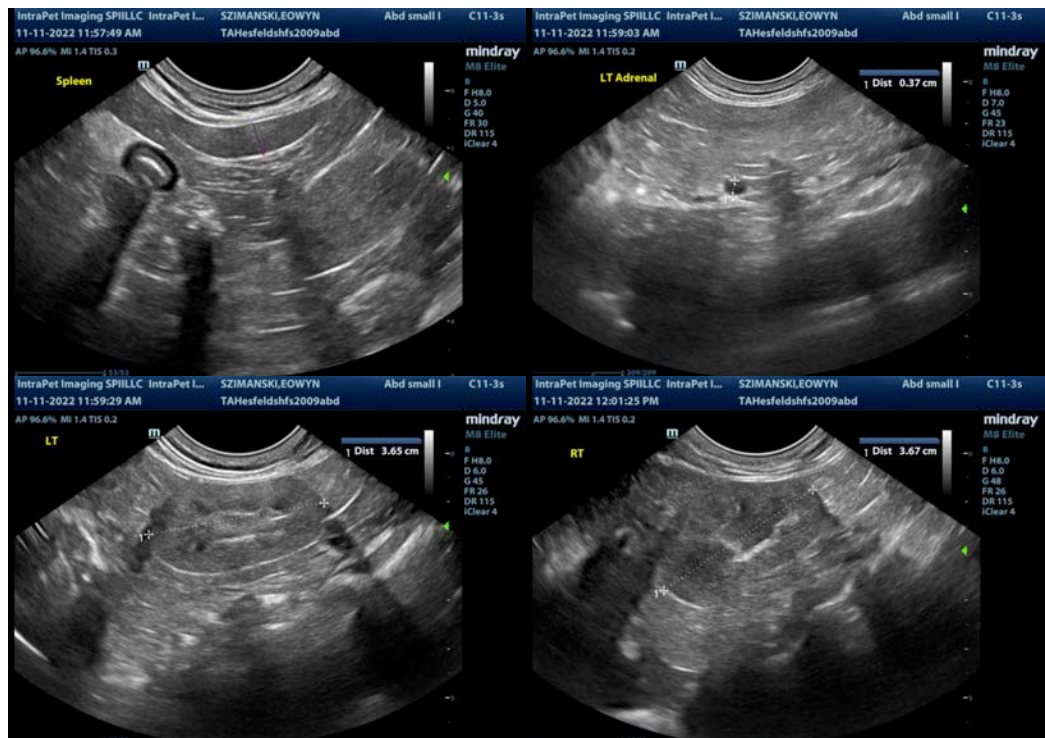
- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.

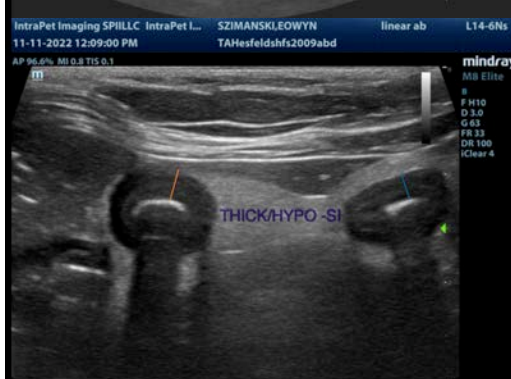
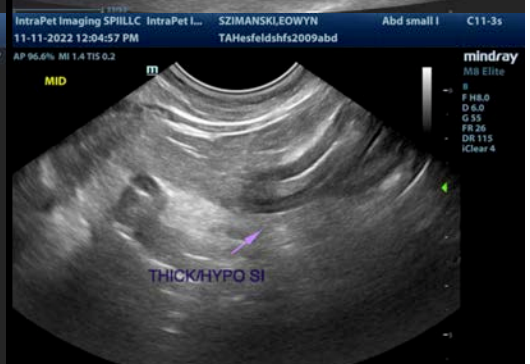
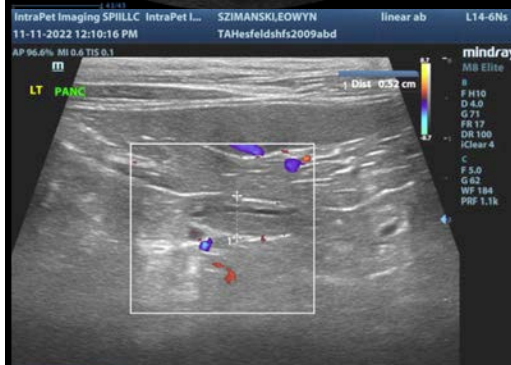
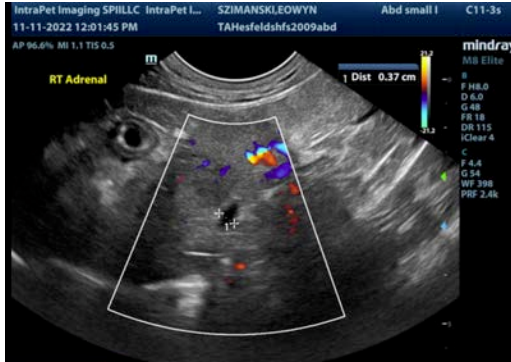
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There are several sections of small intestine that appear thickened with reduced detail of wall layering, and they are surrounded by hyperechoic mesentery. These changes would be most consistent with severe

inflammatory disease or an early neoplastic process. Biopsies would be necessary to differentiate. Options while considering this would include:

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Chronic probiotic therapy.
- Symptomatic therapy for pancreatitis/acute gastroenteritis.
- Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.
- If symptoms are persisting, consider obtaining GI biopsies. Surgical biopsies may be warranted due to the thickness of the small intestine.







**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.

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