

**DATE PRESENTING CLINICAL SIGNS**

4/6/23

Beginning March 22nd - started vomiting and was acting lethargic. Seen Pet Er March 23rd Full BW and X-rays performed. PCV 44 / 7.4 CBC: dec eos 0.08, nRBC suspected, rest WNL chem 17/lytes inc GLu175, dec phos 2.4, dec k 3.2, rest WNL. 2v abdo rads: empty stomach, no evidence of mechanical obstruction. SQ fluids and Maropitant injection. Discharged with Mirtazapine, Cerenia, Metronidazole and Provable. After going home - started with diarrhea, not really interested in eating. Returned to Pet ER 3/23. Admitted into hospital IV fluids, injectable medications Ondansetron Metronidazole Maropitant Metoclopramide Provable and Mirtazapine also started. K was supplemented during visit Also noted fluctuations in PCV / TS 29/5.8 US performed Pancreas:

**PATIENT**

Millie Caslin

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

4/4/17

**WEIGHT**

7.8 Pounds

**INTERPRETED BY**

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

Abnormal Remarks: Right and left limbs were swollen and hypoechoic compared to the surrounding fat. No cysts, abscesses or evidence of neoplasia was seen. Stomach had a moderate amount of fluid and gas in the lumen. No foreign bodies were identified. Gastric wall was normal in thickness and appearance Outcome Appearance of the pancreas was suggestive of pancreatitis. Recommend assessing SPEC fPL level. Moderate amount of fluid present in the stomach can be normal but may indicate delayed gastric emptying if the patient had been held off food prior to the procedure. Functional ileus or obstruction would be possible causes. No cause of obstruction was identified sonographically. This does not rule out the possibility, though. Consider repeat imaging, contrast radiography, CT scan, exploratory surgery if clinical signs persist despite symptomatic treatment. NG tube was placed, and stomach was suctioned. Tube Fed Jevity - did well with feedings Never ate in hospital but brighter / more alert. Tried at home 3/26 - Sunday, did not eat that evening. Monday tried Ensure and did eat. Tuesday again started vomiting. Food and hair initially. Now just bile-tinged fluid. Has again started vomiting and not eating. At some point did vomit part of hair tie.

Current Medications: Buprenorphine, Ampicillin, Cerenia, Protonix, Gabapentin.

Lab Results: See attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****HOSPITAL NAME**

Animal Emergency  
Hospital

**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.

**REFERRING VET**

Dr. Saubier

The left kidney has a normal shape and size (3.34 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.

**INVOICE**

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The right kidney has a normal shape and size (3.53 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.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.40 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 0.40 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 in size (0.93 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.

### ***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.

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 <0.36cm 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 0.20 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 left limb of the pancreas is prominent and mottled 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***

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 normal uniform echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

- Prominent, mottled left limb of the pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Slightly prominent muscularis layer to the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.

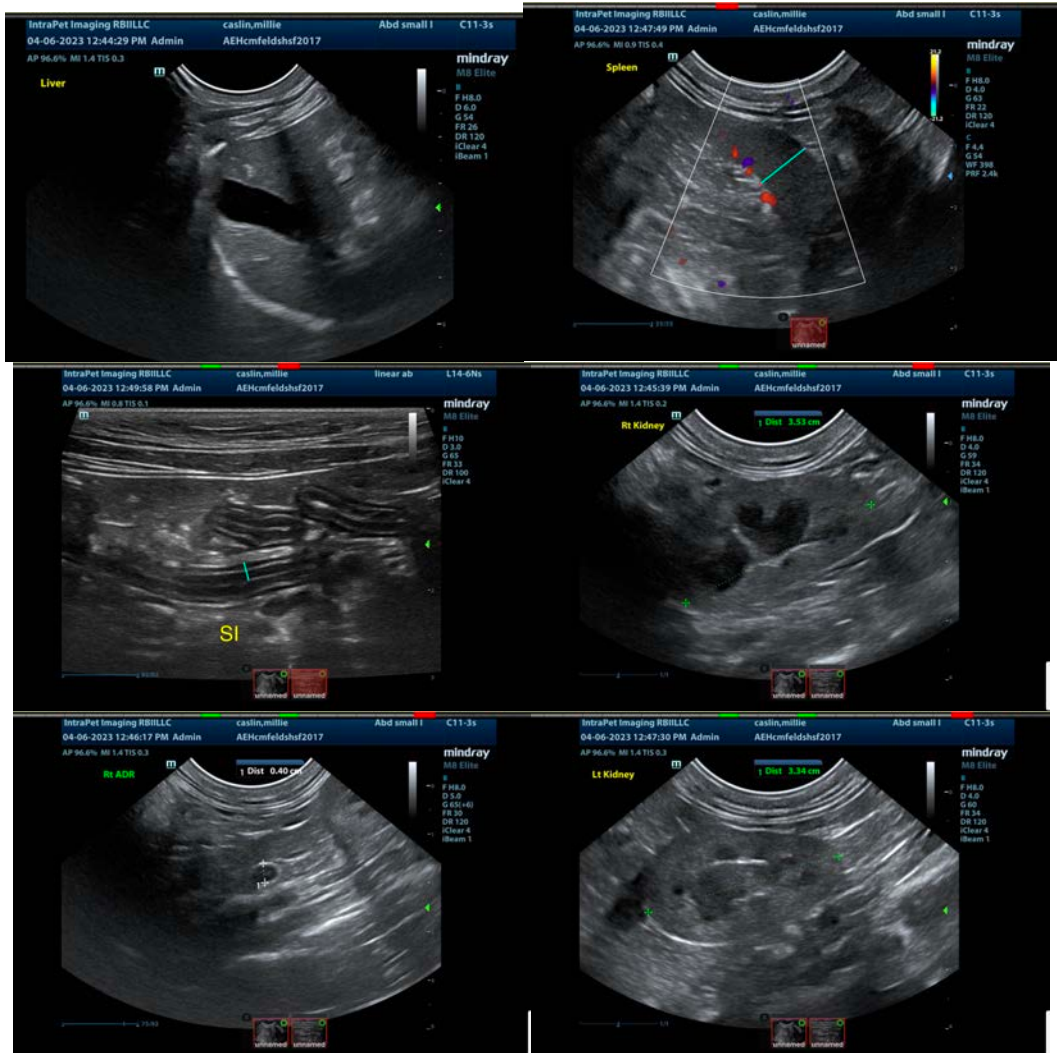
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes observed on today's scan are relatively mild. The pancreas is visible but does not appear overtly inflamed. Additionally, the small intestine appears slightly "ropy" with no focal lesions visualized.

Consider such differentials as food allergy/dietary intolerance, GI parasitism, pancreatitis, dysbiosis, recurrent dietary indiscretion, IBD and less likely neoplasia, etc....

- 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.
- Recommend chronic probiotic therapy.
- If symptoms are persistent despite taking these measures, and an underlying metabolic issue is thought unlikely, then consider obtaining GI biopsies.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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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