

**DATE PRESENTING CLINICAL SIGNS**

6/20/23

Chronic intermittent diarrhea, chronic vomiting 1-2 times weekly, diabetes mellitus - recently believed he was in remission, but became hyperglycemic without insulin, was able to decrease insulin from 3 units to 1 unit twice daily.

PATIENT

Tom Williams

Current Medications: Lantus insulin 1 unit BID, Cerenia PRN for nausea, Metronidazole 125mg BID as of 6/8/23

SPECIES

Feline

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.

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Neutered Male

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.

AGE

7/23/10

The left kidney has a normal shape and size (4.89 cm) with pyelectasia at 0.90 cm. Overall echogenicity is slightly hyperechoic with poor 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

17.4 Pounds

The right kidney has a normal shape and size (5.31 cm) with pyelectasia at 0.50 cm. Overall echogenicity is slightly hyperechoic with poor 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 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 0.45 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.

HOSPITAL NAME

Festival Vet Clinic

The right adrenal gland is normal in size measuring 0.52 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.

REFERRING VET

Dr. Beron

Spleen

The spleen is subjectively normal in size (0.98 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.

INVOICE

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Liver

The liver is large with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in 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 0.33 cm. Duodenum wall measures 0.27 cm. Visualized peristalsis appears appropriate. The jejunum appears significantly thickened with a very prominent muscularis layer. Some focal areas of small intestine appear more prominently thickened with reduced detail of wall layering. In these regions, the small intestine measures up to 0.52 cm.

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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with mild to moderate pancreatitis.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a significant cluster of prominent lymph nodes surrounded by hyperechoic mesentery near the cranial right limb of the pancreas. In this region, lymph nodes measure at 0.37, 0.33, 0.31 cm. Additionally, there is a large, inflamed lymph node in this region measuring 1.3 cm x 1.27 cm. The omentum is hyperechoic, particularly in the right cranial abdomen around the pancreas.

ULTRASONOGRAPHIC FINDINGS

- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Hypoechoic, prominent pancreas with surrounding hyperechoic mesentery and prominent lymph nodes – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.
- Large, hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. These changes are likely consistent with a large cat with a diabetic hepatopathy.
- Diffusely thickened small intestine with a prominent muscularis layer and focal areas with more prominent thickening and reduced detail of wall layering – 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.

- Clusters of prominent/enlarged lymph nodes, particularly near the pancreas – 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

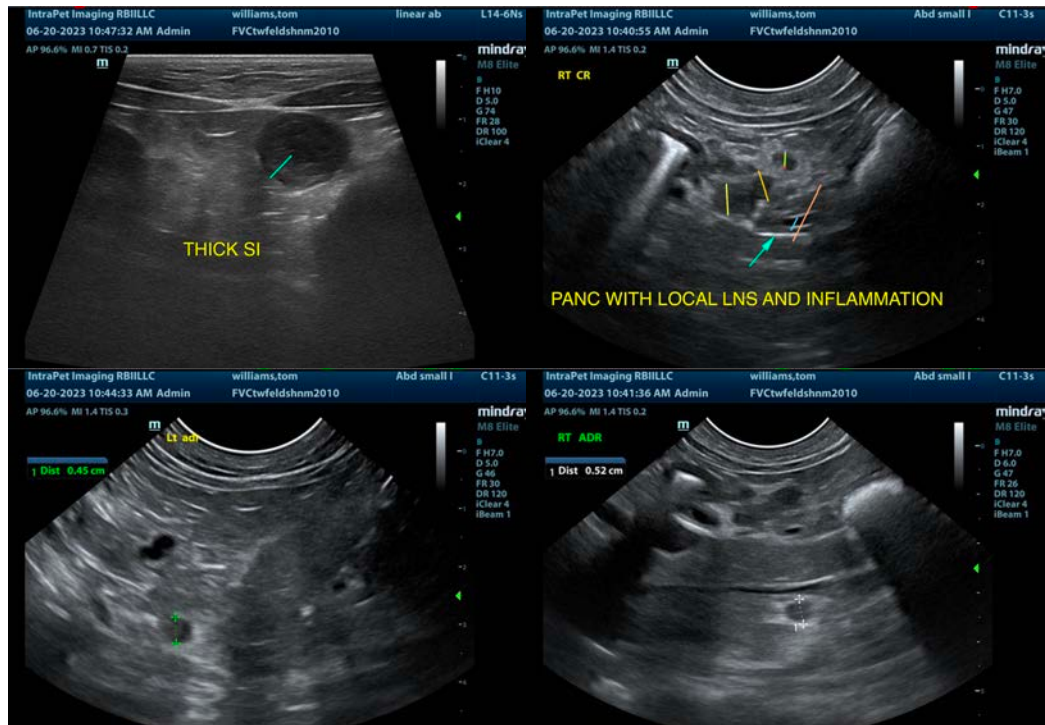
There is a significant amount of inflammation visualized surrounding the cranial aspect of the right limb of the pancreas. There are clusters of prominent lymph nodes, and the pancreas itself appears prominent and mottled. These findings are concerning for pancreatitis. Correlate findings with a quantitative fPLI level and recommend treatment for pancreatitis. Additionally, the small bowel is significantly thickened with some focal areas that appear particularly thickened with reduced detail of wall layering. These findings are very concerning for either severe inflammatory disease or early neoplastic change. Ideally, biopsies of the small bowel would be considered. If this is not possible, you could consider a fine needle aspirate of a mesenteric lymph node, but they are still small enough that this would be challenging.

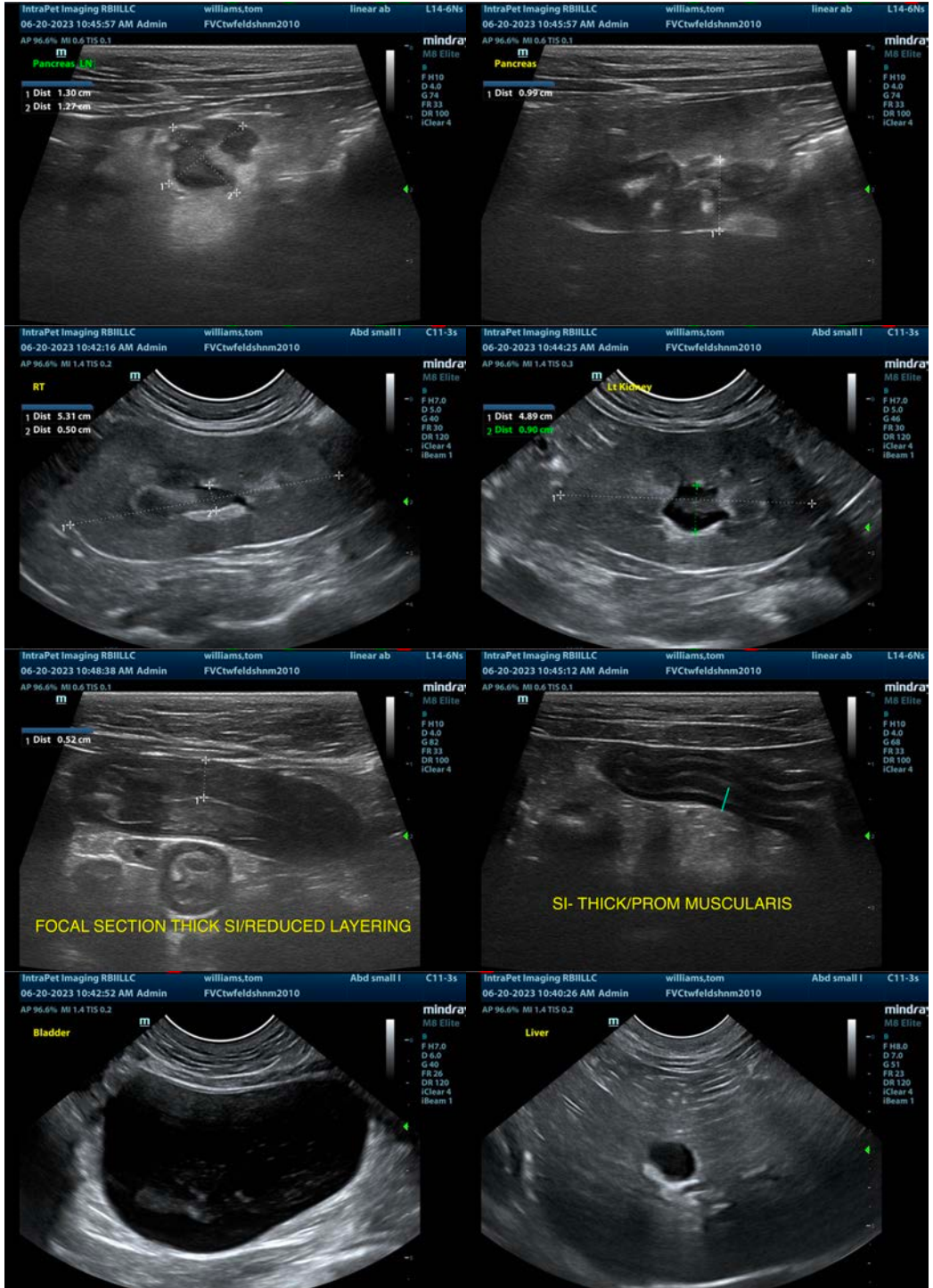
Both kidneys have significant pyelectasia and changes consistent with chronic progressive renal disease. Recommend urinalysis and culture and blood pressure evaluation.

Additionally, consider the following:

- 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.
- Consider chronic probiotic therapy.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
info@sonopath.com