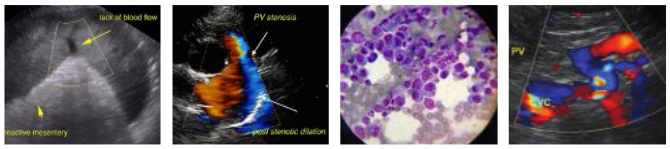


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**PATIENT**

Malachi Torres

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

7yr

**WEIGHT**

9.5lb

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

**IMAGING PERFORMED BY**

Dr. Paul Kim

**HOSPITAL NAME**

Ridgefield Park Animal Hospital

**REFERRING VET**

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**INVOICE**

13753ag

**DATE**

05/08/2023

## PRESENTING CLINICAL SIGNS

Patient presented to the hospital on 4/17/23 due to episodes of seizures. Owner mentioned at that time that patient was having vomiting and diarrhea as well. After bloodwork was performed that day, patient was diagnosed with hyperthyroidism and toxoplasma+ and owner began giving medications for both issues, along with seizure medication (LEVETIRACETAM ER 250 MG). On 5/5/23 owner brought him in due to vomiting more than 7 times in a span of about 5 hrs. Cerenia and metronidazole 100mg was given and taken home at that time. Patient appeared to get better with the cerenia but now he keeps retching but no vomiting occurs. When he tries to vomit and nothing comes out, he starts to pant and pace back and forth. He has been lethargic, trying to hide, and crying out as well. Owner noticed that he has been having lower appetite than usual. Today he did not eat nor drink water and he is urinating very little. As for the diarrhea, it seemed to be solidifying a bit more yesterday. During presentation patient was BAR, pale mucous membranes, and dehydrated.

Abnormal PE/Chem/CBC/UA Results: BLOODWORK FROM 4/17/23: ALT (SGPT) 158 10-100 IU/L HIGH Glucose 194 64-170 mg/dL HIGH T4 5.7 0.8-4.0 mg/dL HIGH

***The submitted study contained 10 videos and 33 still images for review***

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with mild particulate sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. Discrete areas of medullary mineral were present. The left kidney measured 3.7 cm in length. The right kidney measured 3.8 cm in length.

The area of the aortic trifurcation was free of pathology.

### *Adrenal Glands*

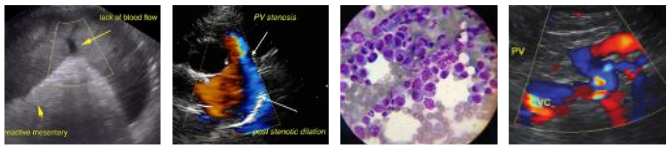
The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.4 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.41 cm width.

### *Spleen*

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

### *Liver/Gallbladder*

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild congealed non-organized echogenic debris. The

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proximal common bile duct was mildly dilated and tortuous without overt post hepatic obstruction. No visualized mineral or mucus. The proximal common bile duct measured 0.2-0.3 cm diameter.

### *Gastrointestinal*

The stomach presented intact wall layering with a normal wall layer ratio. The stomach appeared to be mild to moderately gas distended. No signs of ileus, obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed to semi formed feces in lumen.

### *Pancreas*

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

### *Free Abdomen*

No omental masses or peritoneal effusion was present.

Intermittent mildly prominent to enlarged mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of a lymph node measured 1.7 cm x 0.6 cm.

## ULTRASONOGRAPHIC FINDINGS

- Mild to possible moderate gas distended stomach.
- Sonographically unremarkable small bowel/pancreas.
- Intermittent mild benign/reactive mesenteric lymph nodes.
- Suspect mild cholangitis/cholangiohepatitis hepatobiliary pattern.
- Discrete bilateral renal medullary mineral.
- Non-distended urinary bladder with mild particulate sediment.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.

Overall, there is no overt evidence of significant abdominal visceral specifically gastrointestinal/pancreatic pathology as a definitive cause of the patient's clinical signs. Dietary indiscretion / food hypersensitivity, dysbiosis, occult parasitism, structurally insignificant inflammatory gastroenteropathy or low grade to chronic pancreatitis both of which may appear sonographically normal are all potentials. Assessment for evidence of cranial abdominal/subxiphoid discomfort on palpation which may allude to chronic active pancreatitis is recommended.

A GI panel to include PLI/TLI/Cobalamin/Folate is recommended especially if evidence of weight loss. Three view chest radiographs are recommended if not done to assess for occult thoracic/esophageal pathology.

Hospitalization with 48 hour rehydration protocol with gastric protectants and a limited antigen or hydrolyzed diet trial with potential long term dietary therapy may prove beneficial.

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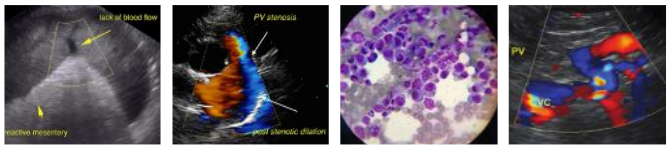

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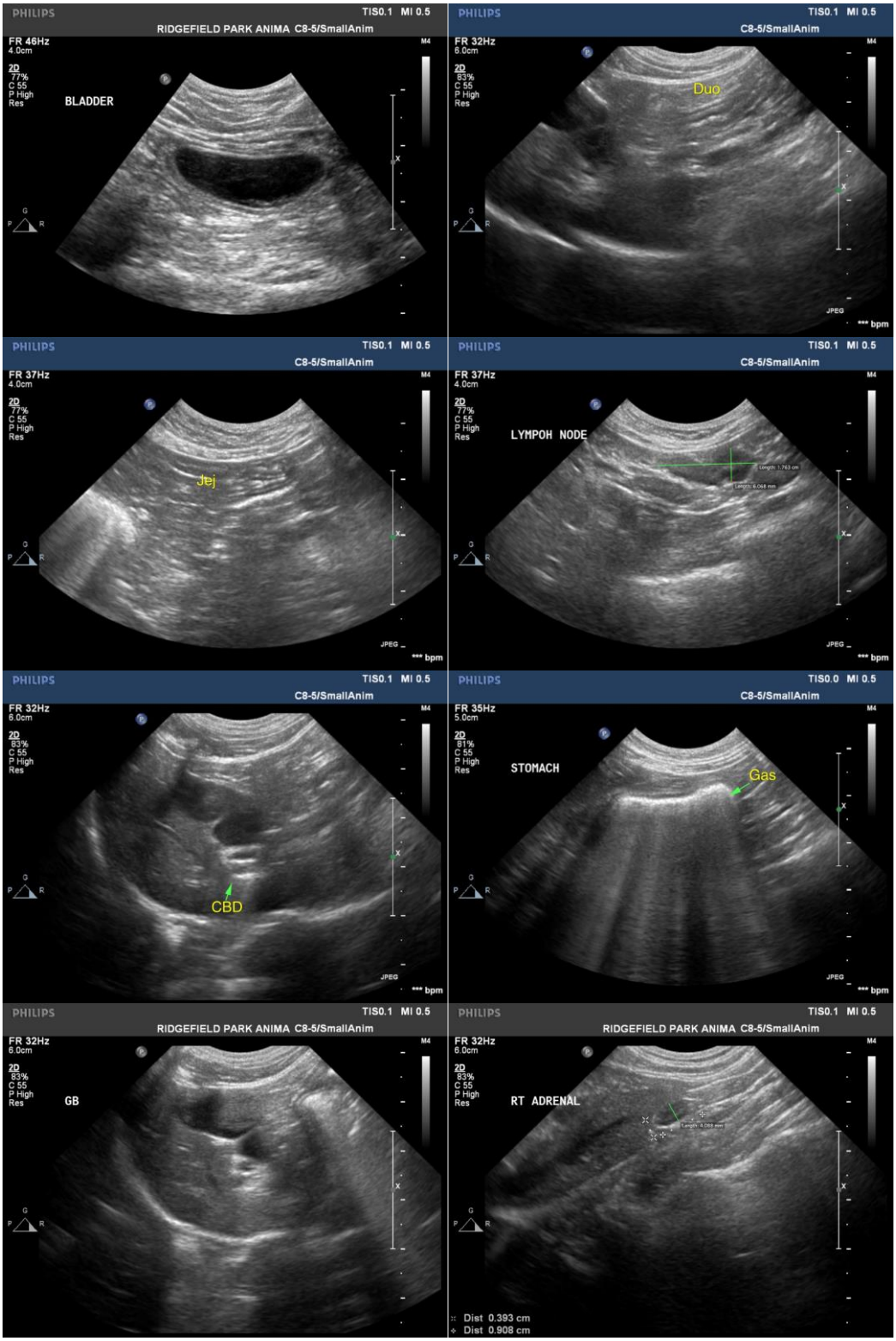

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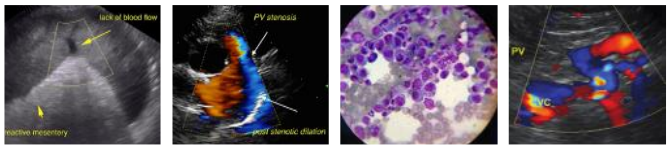

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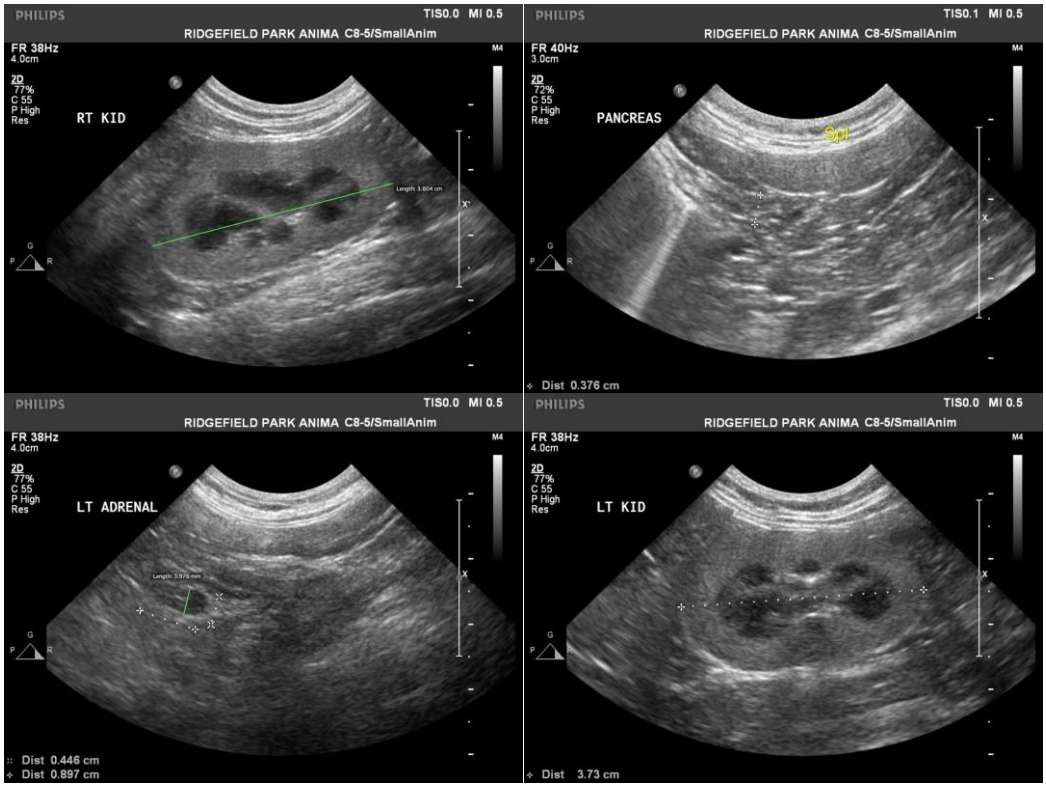


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)**
mac.daniel@sonopath.com