



**PATIENT**

Hazel Soto

**SPECIES**

Canine

**BREED**

Mini Pinscher

**SEX**

Spayed female

**AGE**

8 years

**WEIGHT**

11 pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jose

**HOSPITAL NAME**

Animal Clinic of  
Queens

**REFERRING VET**

Dr. Mucera

**INVOICE**

10239ag

**DATE**

03/29/2022

**PRESENTING CLINICAL SIGNS**

History: Frequent episodes of vomiting and loose stool, intermittent appetite, no improvement on medication, gassy with tense abdomen. Atopy Rx apoquel

Abnormal PE/Chem/CBC/UA Results: BCS 4/9, tense on abdominal palpation, mild dermatitis.  
CHEM: 1/03/2022 AST: 71 (H) 15-66 ALT: 203 (H) 12-118 ALK P: 157 (H) 5-131 Potassium: 5.6 (H) 3.6-5.5  
CBC: Hemoglobin: 20.8 (H) 12.1-20.3 HCT: 62% (H) 38-60 Platelet: 427 (H) 170-400

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or 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. The left kidney measured 3.6 cm in length. The right kidney measured 3.5 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 0.47 cm width at the caudal pole and 0.52 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.44 cm width at the caudal pole and 0.44 cm width at the cranial pole.

**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**

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. The cystic and common bile ducts were normal.

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained luminal gas and mild ingesta/chyme with no signs of ileus, obstruction or foreign material.



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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Subjective propensity for subtly prominent segmental muscularis layer as well as mildly prominent to echogenic submucosa was observed. The lumen of the small intestine was empty with no signs of masses, ileus, obstruction or foreign material.

**SPECIES**

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The colon exhibited sonographically unremarkable wall layering with subjective formed to semi formed feces present in the descending colon with non-formed feces in the subjective proximal colon.

**Pancreas**

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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.

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**Free Abdomen**

Intermittent subjectively benign/reactive jejunal lymph nodes were observed, an example measuring 1.4 cm x 0.5 cm. No peritoneal effusion was noted.

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**ULTRASONOGRAPHIC FINDINGS**

- Intact yet mild segmental to generalized mildly prominent small intestinal wall layering.
- Overtly normal colon exhibiting segmental non formed feces.
- Intermittent benign/reactive jejunal lymphadenopathy.

**WEIGHT**

11 pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The small intestinal mural changes are relatively mild yet the subtle mural changes that were present are suggestive of probable inflammatory enteropathy. Unfortunately, the severity of sonographic gastrointestinal changes does not always correlate with the gastrointestinal symptoms exhibited. In patients with chronic gastrointestinal symptoms, low grade to mild pancreatitis, IBD, dysbiosis, dietary intolerance/food hypersensitivity or although unlikely in this case intestinal neoplasia could be possible. Further assessment may include a fresh fecal analysis to rule out parasitic ova/giardia as well as a GI panel to include PLI/TLI/Cobalamin/Folate.

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Empirically, a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Provable or Visbiome), antibiotic trial and as needed gastrointestinal support with assessment of clinical response may prove beneficial. Intestinal biopsies may be indicated if GI signs continue despite empirical therapy.

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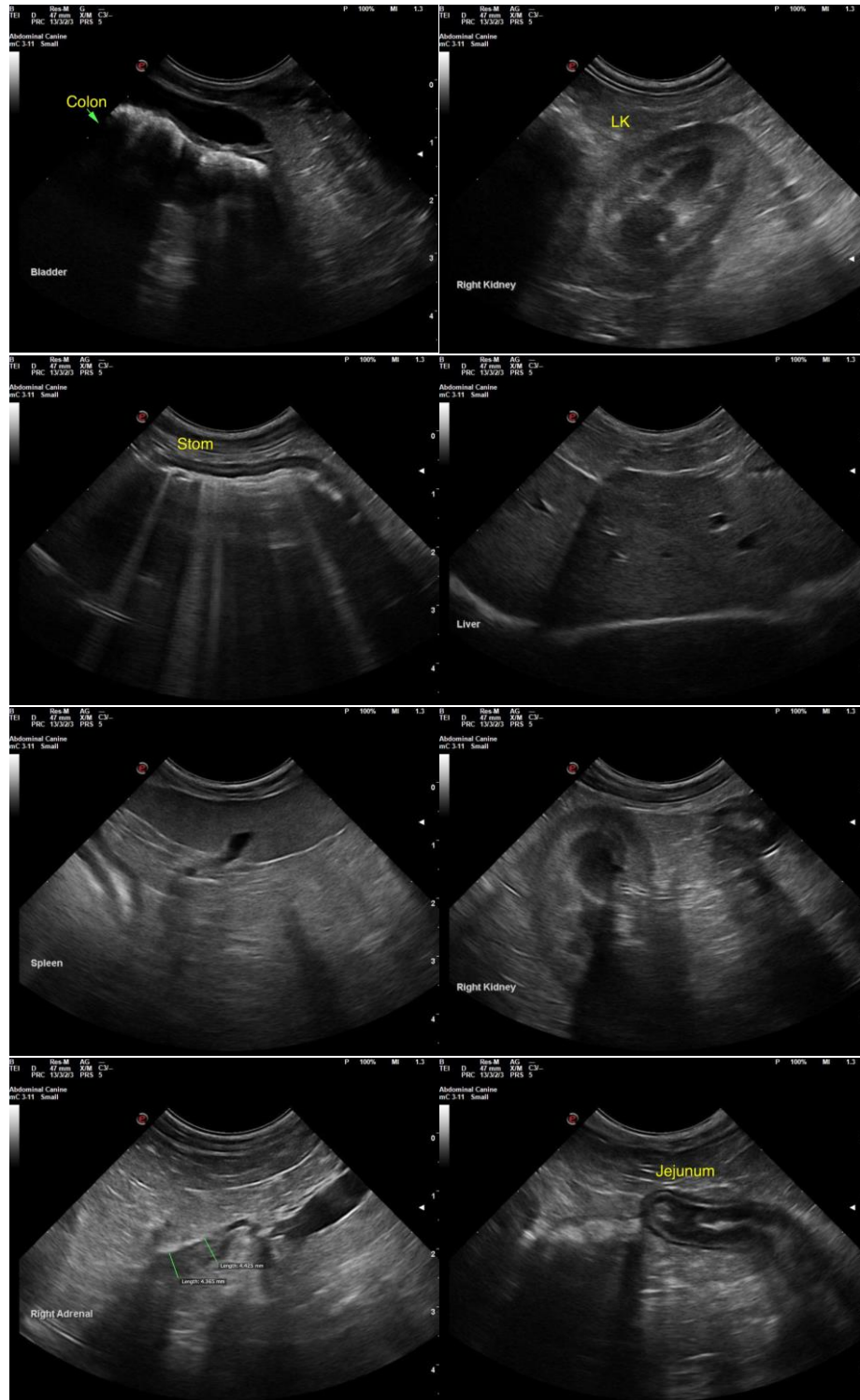
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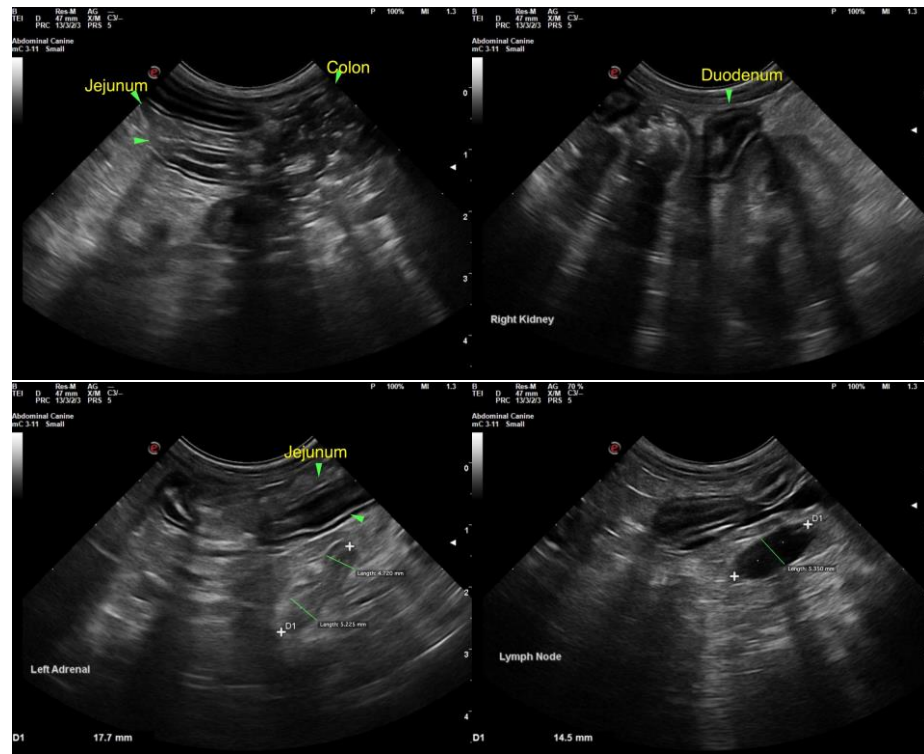
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@SonoPath.com