



**PATIENT**

Bailey Nunez

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

3/10/11

**WEIGHT**

11.5

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Ashley Fatzer

**HOSPITAL NAME**

Andover AH

**REFERRING VET**

Dr. Hummel

**INVOICE**

13033

**DATE**

1/11/22

**PRESENTING CLINICAL SIGNS**

Chronic intermittent vomiting

Abnormal PE/Chem/CBC/UA Results: PE: NSF Bloodwork n/a

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 was noted.

The area of the aortic trifurcation was free of pathology.

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. An indistinct to hyperechoic corticomedullary band, consistent with a medullary rim sign, was present. No evidence of pyelectasia was noted in either kidney. The left kidney measured 4.2 cm length. The right kidney measured 4.3 cm length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.33 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.40 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. The spleen was subnormal in size potentially owing to volume contraction, measuring 0.45 cm in width.

**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 normal in size yet potentially divided into two separate compartments. Anechoic content was present in the gallbladder. The cystic and common bile ducts were normal.

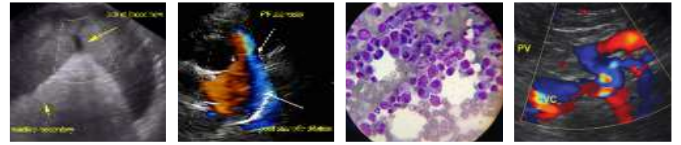
**Gastrointestinal**

The gastric fundus and body exhibited subjective intact and sonographically unremarkable wall layering. The gastric body was primarily empty with potential for minor retained ingesta / chyme. The gastric antrum and pylorus exhibited mild to moderate mural hypertrophy with indistinct to potential loss of discernable wall layering. Mural hypertrophy was variable with the ventral pylorus wall width measured



<b>PATIENT</b>	0.85 cm. Mild retained primarily anechoic fluid was present in the antrum and pylorus lumen. No overt evidence of mechanical pyloric outflow obstruction was noted.
Bailey Nunez	
<b>SPECIES</b>	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. The duodenum wall width measured 0.24 cm.
Feline	
<b>BREED</b>	Normal visible colon wall layers were present with apparent formed feces in lumen.
DSH	<b>Pancreas</b>
<b>SEX</b>	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 were evident.
MN	
<b>AGE</b>	<b>Free Abdomen</b>
3/10/11	Intermittent, gastric lymph nodes were present adjacent to the antrum and pylorus. 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 gastric lymph node measured 0.56 cm width. Subtle evidence of peripyloric reactive mesentery was present. No effusion was noted.
<b>WEIGHT</b>	
11.5	
<b>INTERPRETED BY</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<b>Primary Findings</b> <ul style="list-style-type: none"> <li>• Mild to moderate thickened antrum / pylorus with mild retained pyloric fluid</li> <li>• Associated subjectively reactive / benign gastric lymphadenopathy</li> <li>• Overtly normal small bowel / pancreas</li> </ul>
<b>IMAGING PERFORMED BY</b>	<b>Secondary Findings</b> <ul style="list-style-type: none"> <li>• Bilateral nonspecific indistinct renal medullary rim sign</li> <li>• Potential bilobed gallbladder - normal variant in a cat</li> </ul>
Ashley Fatzer	
<b>HOSPITAL NAME</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
Andover AH	The medullary rim sign is a nonspecific finding seen in both normal and abnormal kidneys. It may be associated interstitial renal disease, hypercalcemia, tubular necrosis, lymphoma, and FIP. However, it is a nonspecific finding.
<b>REFERRING VET</b>	
Dr. Hummel	
<b>INVOICE</b>	Given the patient's history of chronic intermittent vomiting, potential for chronic gastritis in the area of the antrum, pylorus with associated reactive or hyperplastic gastric lymphadenopathy is suspected. However, potential for infiltrative process / neoplasia within the antrum and pylorus cannot be definitively excluded. Ideally, endoscopic or surgical biopsies in the area of the antrum and pylorus for histopathology and definitive diagnosis are recommended. A GI panel to include PLI/TLI/ Cobalamin/Folate could be considered to rule out occult concurrent disease such as structurally insignificant enteropathy or low-grade to chronic pancreatitis if evidence of weight loss.
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Empirically, gastroprotectant protocol +/- therapy for heliobacteriosis and sonographic monitoring of the stomach would be appropriate. However, sampling in the area of the thickened antrum and



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pylorus is recommended for further clarification if possible.

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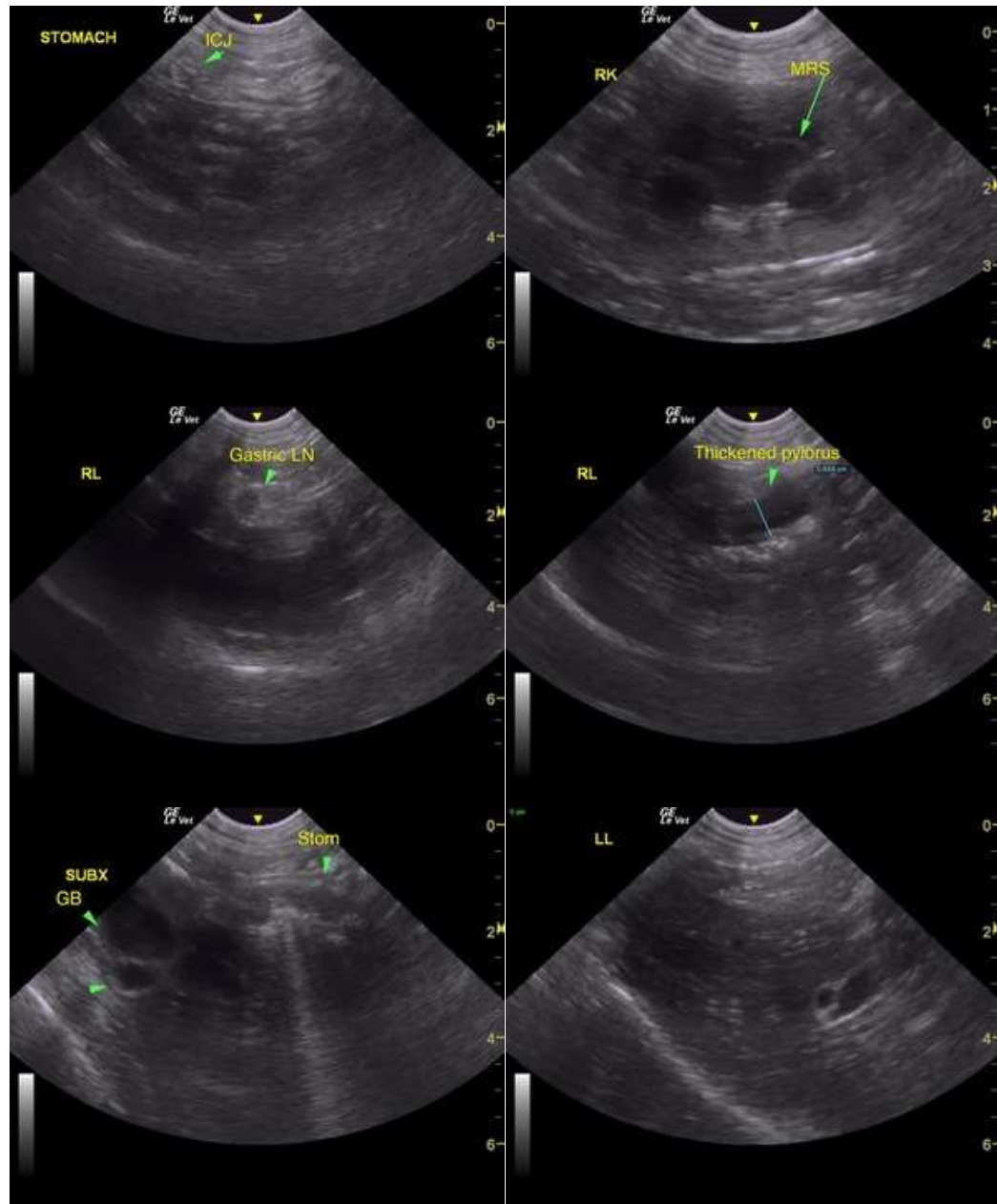
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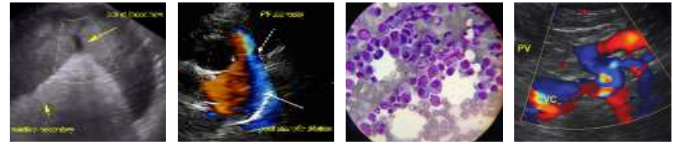
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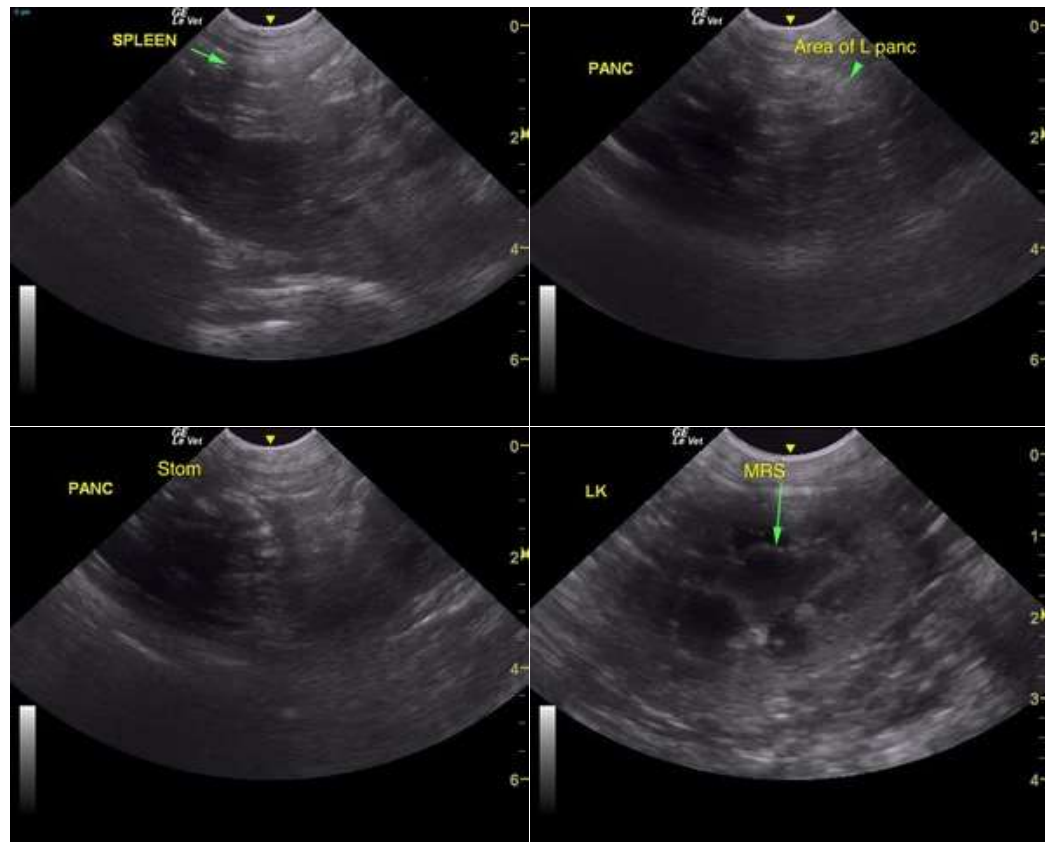
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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