



**PATIENT**

Sadie Oberholtzer

**PRESENTING CLINICAL SIGNS**

Chronic (3-4 month) history of recurrent diarrhea and hematochezia. Unremarkable CBC/Chem/cPL and GI panel

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

Yorkshire Terrier

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.

**SEX**

Spayed Female

The left kidney has a normal shape and size. (3.5 cm) Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

1 Year

The right kidney has a normal shape and size (3.5 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

9 Pounds

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.44 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.

**INTERPRETED BY**

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

The right adrenal gland is normal in size measuring 0.43 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, 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.

**IMAGING PERFORMED BY**

Dr. Tiffany Brady

**Liver**

**HOSPITAL NAME**

Shiloh Vet Hospital

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.

**REFERRING VET**

Dr. Deb Bangs

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

**INVOICE**

38011

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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.

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The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall



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layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measured 0.43 cm. Jejunum wall measured 0.32 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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Canine

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**

**BREED**

Yorkshire Terrier

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

**Free Abdomen**

**SEX**

Spayed Female

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.

**AGE**

1 Year

**ULTRASONOGRAPHIC FINDINGS**

- No significant lesions visualized

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

9 Pounds

Today's scan appears relatively normal. No focal lesions are visualized associated with the gastrointestinal tract to explain the diarrhea reported. Unfortunately, there are many causes for diarrhea that cannot be diagnosed by ultrasound alone. In a young dog like this with chronic GI signs, I would consider food allergy/dietary intolerance, GI parasitism, dysbiosis, as well as Addison's disease as potential differentials (others exist).

**INTERPRETED BY**

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

- Consider a novel protein/hydrolyzed protein prescription diet.
- Recommend a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to look for evidence of exocrine pancreatic insufficiency, dysbiosis and small intestinal disease.
- Consider a liver function test to screen for the possibility of a portosystemic shunt (none observed today) and an ACTH stimulation test to screen for Addison's disease.
- Recommend fecal screening and empirical treatment for large bowel parasites (if not already done).
- Recommend chronic probiotic therapy.

**IMAGING PERFORMED BY**

Dr. Tiffany Brady

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If metabolic disease seems unlikely based on bloodwork, and empirical treatment/diagnostics for GI parasitism, dietary intolerance, dysbiosis, etc. have been unrewarding, then consider obtaining GI biopsies (to look for evidence of underlying neoplasia, lymphangiectasia, etc.) as well as possible fecal cultures to look for dysbiosis, particularly if this patient has been on frequent rounds of antibiotics.

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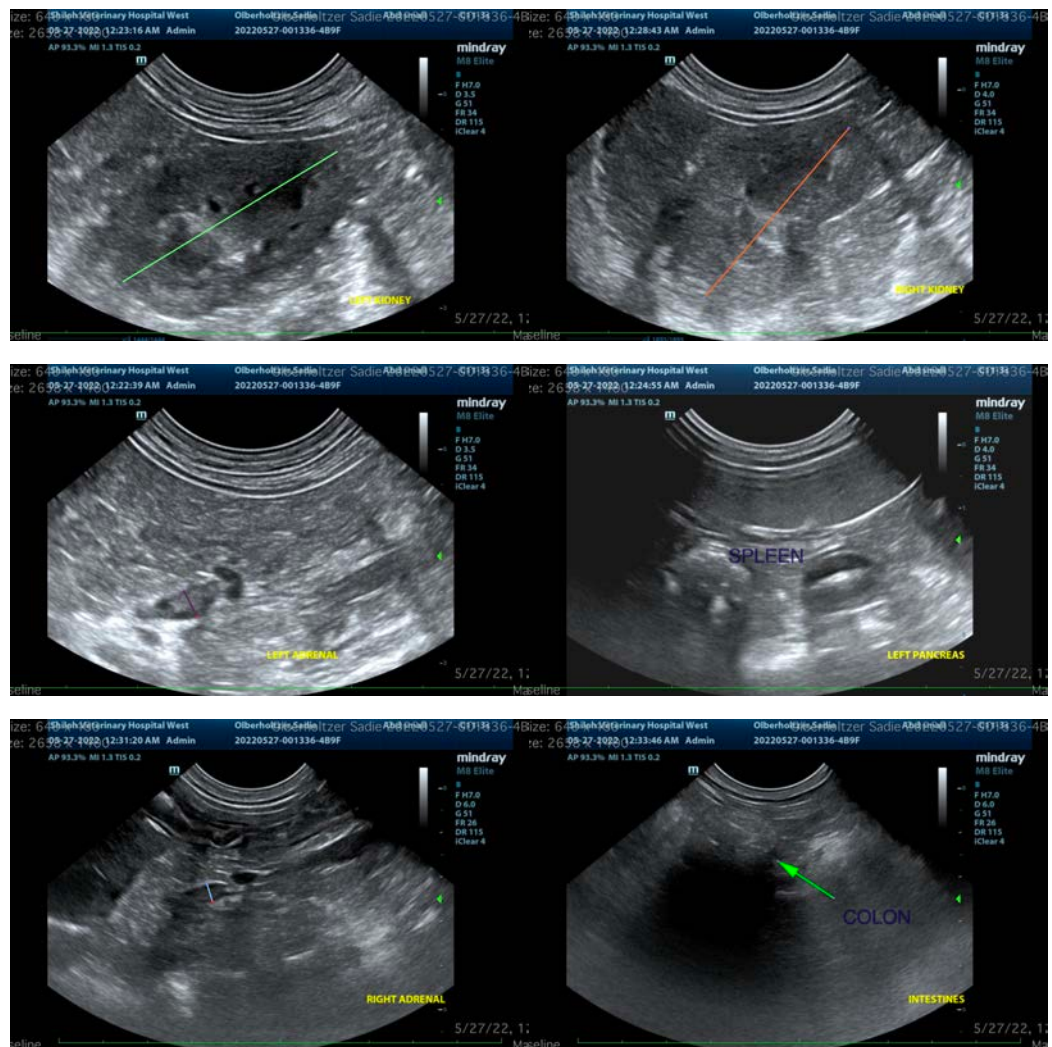
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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