

**PATIENT PRESENTING CLINICAL SIGNS**

Riley Large History: Watery, occasionally bloody stool for ~6 weeks  
Medication: Carafate, Provable, Metronidazole, Panacur, Gabapentin, Diagel

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine

**Urinary System**

**BREED**

Golden Retriever

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**

FS

The left kidney has a normal shape and size (6.75 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**

13 years

The right kidney has a normal shape and size (7.2 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**

55 lbs

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.59 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, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

The right adrenal gland is normal in size measuring 0.72 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.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**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.

**HOSPITAL NAME**

Littlestown VH

**Liver**

The liver is subjectively normal in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. There is an isoechoic, rounded mass effect coming off of the liver measuring 5.94 cm x 5.8 cm. It appears to involve the left medial portion of the liver.

**REFERRING VET**

Dr. Jennings

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

**INVOICE**

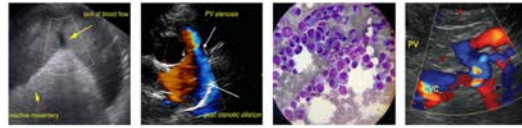
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**Gastrointestinal**

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.

**DATE**

10.1.2021



**PATIENT**

Riley Large

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.55 cm. Jejunum wall measured 0.47, 0.5 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

**SPECIES**

Canine

**BREED**

Golden Retriever

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**

**SEX**

FS

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**

**AGE**

13 years

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.

**PRIMARY FINDINGS**

**WEIGHT**

55 lbs

- Large, heterogeneous liver with rounded, isoechoic mass effect – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

**INTERPRETED BY**

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

- Thickened small intestine with mildly reduced distinction of gastric wall layering – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The small intestine changes observed are consistent with the history of chronic diarrhea, but unfortunately are non-specific. No focal bowel lesions were observed. Metabolic evaluation was performed and did not identify any significant clues. There is a microcytosis present, which could indicate an iron deficiency, anemia, and chronic GI bleeding, which is not always evident with melena. Consider an iron panel to evaluate iron levels and whether supplementation is needed. Additionally, recommend GI panel with PLi, TLI, cobalamin and folate to evaluate the pancreas further for any evidence of inflammation and to look for evidence of chronic small intestinal disease. Based on the relatively normal lab work, I do suspect a primary gastrointestinal disorder. Consider such differentials as GI parasitism, mild pancreatitis, bacterial dysbiosis, food allergy, IBD, and less likely intestinal neoplasia.

**HOSPITAL NAME**

Littlestown VH

**REFERRING VET**

Dr. Jennings

In older patients with more chronic symptoms, I would most strongly consider food allergy, IBD, and intestinal neoplasia.

-Recommend diet trial with a novel protein/hydrolyzed prescription diet

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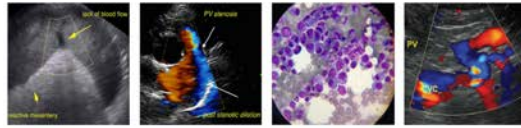
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-Recommend GI panel for evaluation of B12 levels etc. (start empirical B12 while waiting for results)

-If symptoms are progressing consider obtaining GI biopsies

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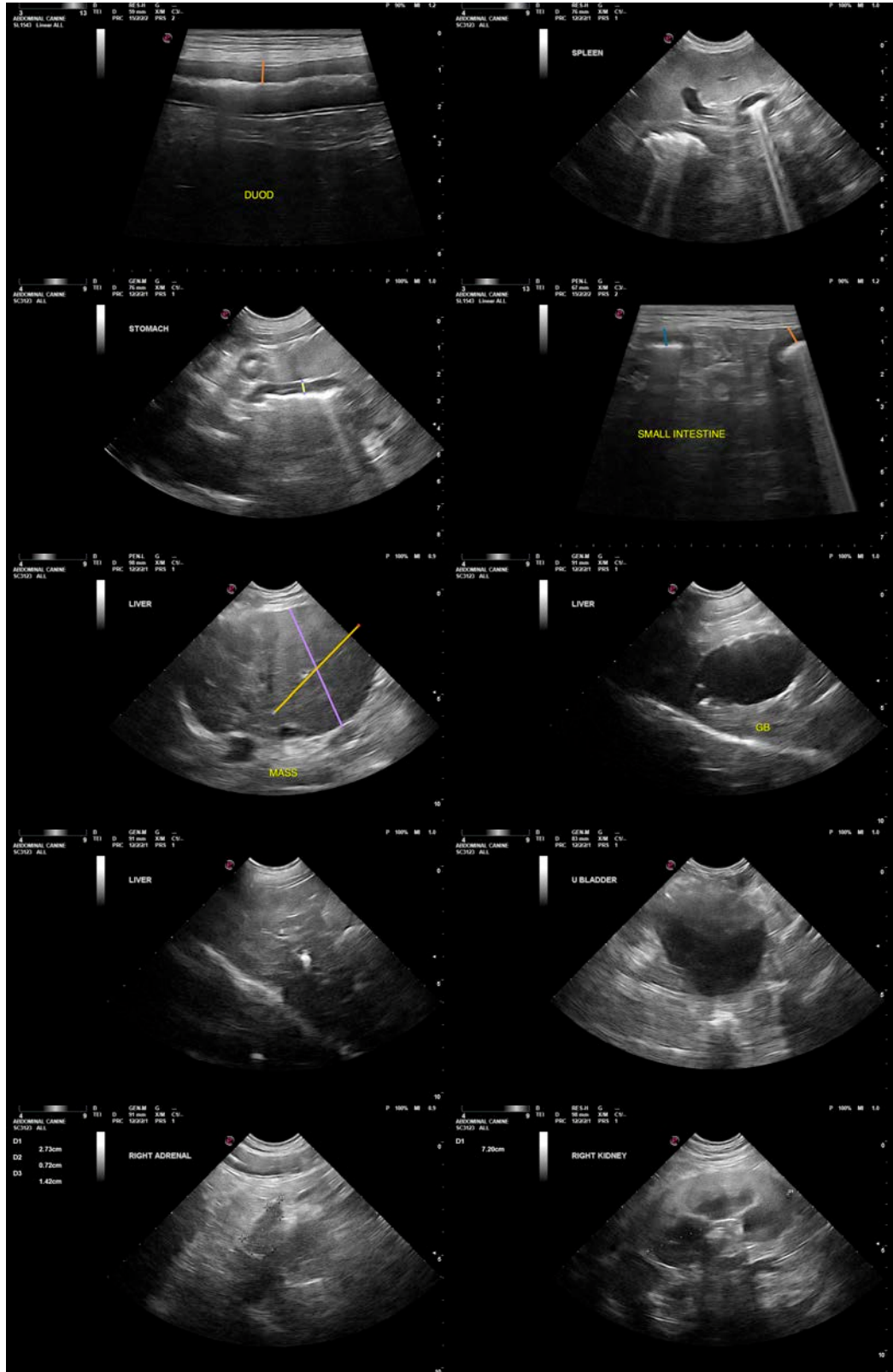
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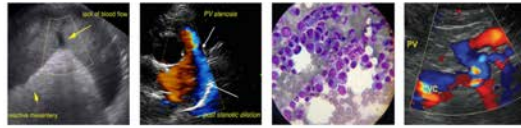
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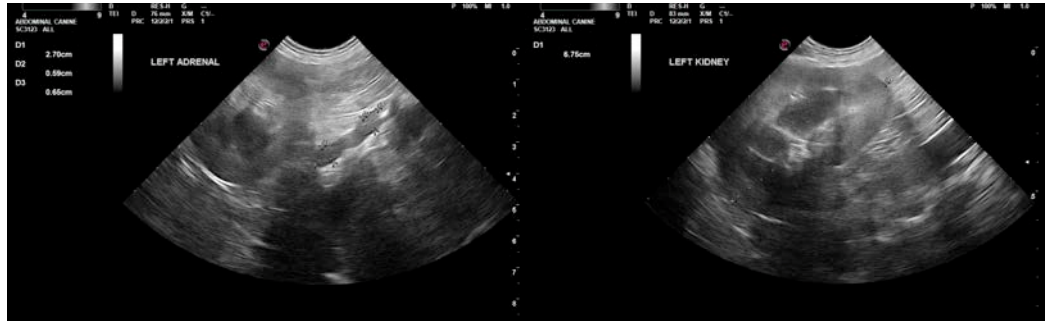
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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