



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Riley Prestige

**SPECIES** Canine

Previous scan 11/2019, significant weight loss and muscle wasting. Diarrhea and bouts of vomiting, some lethargy noted also. Noted mild improvement on Metronidazole. Has been on a liver diet and most recently Royal Canin GI Gastro High Energy but continues to lose weight. Quite thin. Treated previously for hookworms. Has been on low dose Furosemide to help with ascites with some improvement. Abnormal PE/Chem/CBC/UA Results: Decreased T protein, Albumin, elevated Liver enzymes, normal T4, decreased HGB.

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Labrador Retriever

**Urinary System**

**SEX**

Spayed Female

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Minor non-dependent, particulate sediment was present without evidence of calculus formation, likely indicative of minor cellular or crystalline debris. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

**AGE**

7 Years

No overt pathology in the area of the uterine remnant or aortic trifurcation.

**WEIGHT**

44.2 Pounds

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 6.9 cm. The right kidney measured 7.2 cm.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.1 cm length x 0.48 cm at the caudal pole. The right adrenal gland was indistinctly visualized owing to patient size without overt pathology, subjectively measuring 0.64 cm at the caudal pole.

**IMAGING PERFORMED BY**

Crystal Hill

**Spleen**

The spleen exhibited generalized enlargement, yet primarily maintained, finely textured homogeneous parenchyma and symmetrical contour. A splenic vein thrombus was present, yet subjective adequate overall splenic blood flow on power doppler assessment. A focal area of hypoechoic to non-homogeneous splenic parenchyma was present in the cranial spleen with potential additional areas of subtle hypoechoic mid to caudal splenic parenchyma. No distinct masses noted in the spleen.

**HOSPITAL NAME**

The Maples AH

**Liver**

The liver exhibited subjective subnormal size. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. 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.

**REFERRING VET**

Dr. Kazienko

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**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained echogenic, nonshadowing ingesta most consistent with post prandial presentation without signs of ileus, obstruction or foreign material. Ventral gastric body wall measured 0.30 cm.

**DATE**

12/16/21



**PATIENT**

Riley Prestige

The visualized 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. Jejunum wall measured 0.36 cm.

**SPECIES**

Canine

Normal visible colon wall layers were present with apparent 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.

**BREED**

Labrador Retriever

**Free Abdomen**

Small pockets of scant peritoneal free fluid were present. No overt significant intraabdominal lymphadenopathy present. The omentum exhibited uniform echogenicity.

**SEX**

Spayed Female

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

7 Years

- Hepatopathy with subjective subnormal liver size – suspect chronic hepatopathy, subjectively benign.
- Overtly normal gastrointestinal tract with gastric ingesta
- Splenic vein thrombus with concurrent cranial splenic infarct
- Small pockets of scant peritoneal free fluid

**WEIGHT**

44.2 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

R. McKenzie Daniel, DVM,  
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The presence of gastric ingesta may correlate with post-prandial presentation, or may potentially suggest metabolic gastric hypomotility if documented NPO. Potential for structurally insignificant gastrointestinal disease may be possible, as lack of ultrasonographic changes does not always correlate with the severity of gastrointestinal symptoms exhibited. Chronic hepatic disease, structurally insignificant gastrointestinal disease or potential combination of the two may be contributing to the patient's clinical signs. Decreased albumin as well as possible hypercoagulable state owing to loss of clotting factors as exhibited by splenic vein thrombus and concurrent splenic infarcts.

**IMAGING PERFORMED BY**

Crystal Hill

Further assessment may include GI panel to include PLI, TLI, cobalamin and folate and fasting and post-prandial bile acids. Resting cortisol could also be considered to rule out potential for occult Addison's disease. Hepatic and gastrointestinal biopsies would be required for further clarification. Given the primarily reported gastrointestinal signs and weight loss, some or all of the following protocol may be considered empirically.

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**PLE Therapy**

Part or all of this protocol may be considered based on your clinical impression of the patient:

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**OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitory effusions, monitor concurrent PLN (Wheaton Terrier PLE/PLN) and liver disease:**

**Plasma** 10 mL / kilogram IV over 4 hours

Or **Human albumin** 2 ml/kg/h over 10 hours. Total daily volume 20.l/kg/day

**And Colloids/Hetastarch**

10 to 20 mL per kilogram per day and dogs

10 to 15 mL per kilogram per day cats

(Can bolus first 1/3 of dose over 15 minutes)

& maintain on LRS maintenance otherwise.

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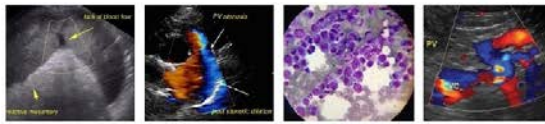
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**Metronidazole** (10-20 mg/kg po bid)  
**Famotidine** 1 mg/kg Iv Im po dc Sid /bid  
**Sucralfate** 0.5-1 g po tid dogs, 0.5 g bid cats in slurry **Or Misoprostol** 1-5 ug/kg po tid  
**Diet:** Highly digestible high quality protein, low fiber, low fat diet (< 15% of dry matter). Hydrolyzed protein or novel protein. Purina HA or Royal Canine HP or similar.  
**Prednisone** or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m<sup>2</sup> Q 24-48 hours.  
**Cobalamine** (B12) 250-1500 ug/dog weekly x 6 weeks.  
**Calcium** supplementation if necessary.  
**Aspirin** 0.5-1 mg/kg/day **or Clopidrel** (Plavix) 1-5 mg/kg/day.

For an additional charge, internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>





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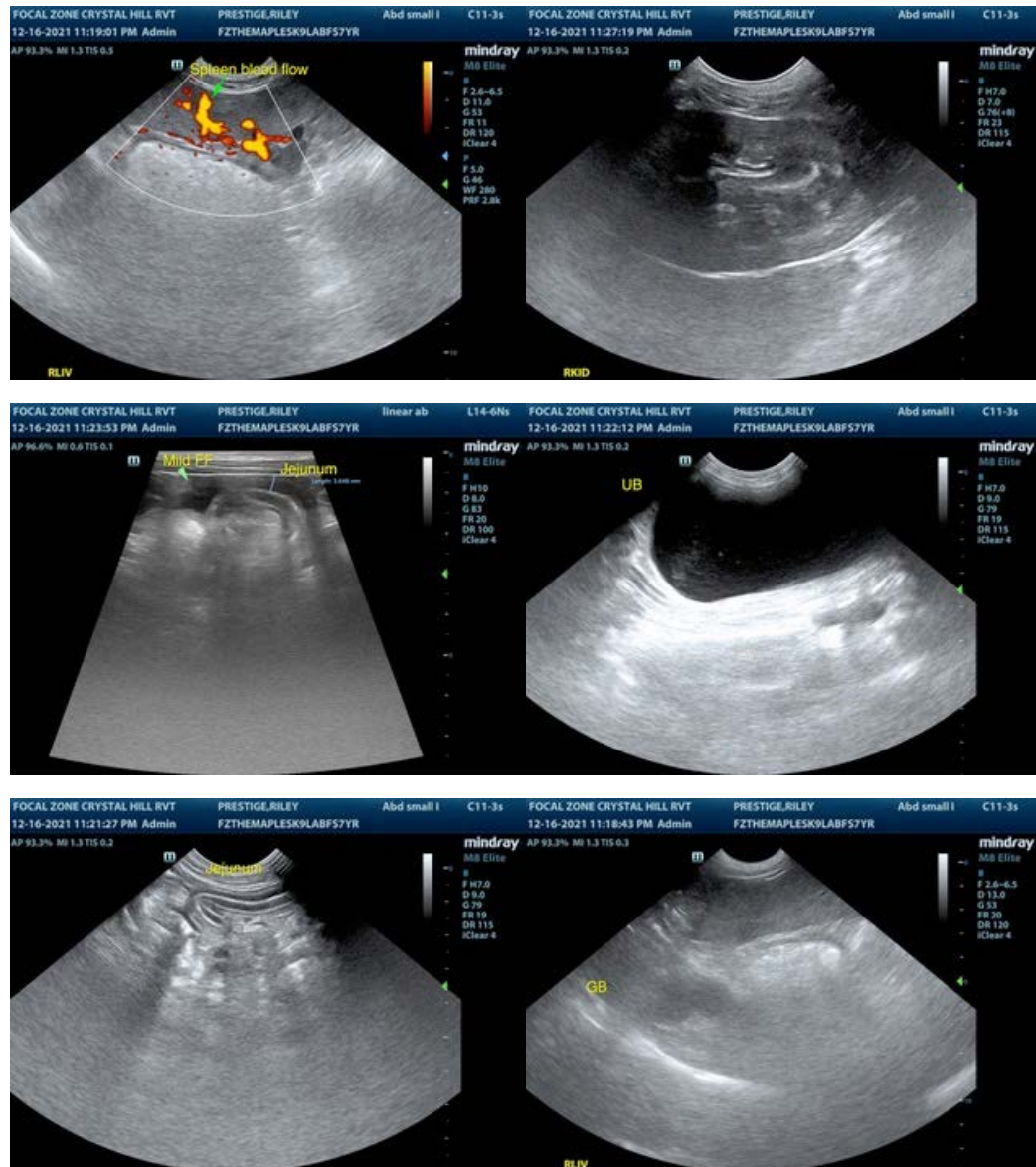
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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