



**PATIENT PRESENTING CLINICAL SIGNS**

Hallie McDonald Weight loss, history of vomiting and diarrhea, chronic diarrhea since February  
 ALT 76, Albumin 2.5, Globulin 3.7

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

**BREED** The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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.

**SEX** The area of the aortic trifurcation was free of pathology.

FS 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 6.3 cm in length. The right kidney measured 8.2 cm in length.

**WEIGHT Adrenal Glands**

62.9 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 0.70 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 0.76 cm width at the caudal pole.

**INTERPRETED BY**

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

**Spleen**

The spleen exhibited generalized enlargement with normal splenic vascularity and maintained symmetrical capsule contour. Subtle generalized splenic parenchyma heterogeneity was present with no masses or nodules.

**IMAGING PERFORMED BY**  
 Rebekah Jakum, CVT  
 ARDMS/RVT

**Liver/ Gallbladder**

**HOSPITAL NAME**  
 The Village  
 Veterinarian

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.

**REFERRING VET**

Dr. Longenecker

**Gastrointestinal**

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact yet mildly prominent wall layering was maintained and distinct. Mild retained anechoic fluid and luminal gas was present. No evidence of gastric distention with retained ingesta or foreign material was noted. No evidence of mechanical pyloric outflow obstruction was noted.

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The intestinal walls demonstrated intact yet prominent wall layering owing to propensity for a mildly prominent mucosa and maintained 1:3 muscularis / mucosa ratio. The mucosa exhibited mild

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decreased echogenicity with occasional mucosal speckling. A segmental nonobstructive ileus pattern consisting of mild fluid accumulation in the intestinal lumen was present without obstruction or foreign material. No evidence of loss of intestinal wall layering or intestinal masses was noted.

**SPECIES**

Canine

The colon walls presented intact yet prominent wall layering with mild thickened to echogenic submucosa. Semi-formed feces consistent with reported diarrhea was present in the colon lumen with lumen dilation.

**BREED**

GSD

***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 were evident.

**SEX**

FS

***Free Abdomen***

No evidence of significant lymphadenopathy was present. Small pockets of scant primarily peri intestinal free fluid were noted.

**AGE**

2014

***Heart***

Brief sonographic assessment of the heart revealed overtly normal cardiac structure including no evidence of left or right heart chamber enlargement. Subjective decreased LV systolic function was noted. No evidence of cardiac or pericardial tumors was noted. No evidence of pericardial or pleural free fluid was noted.

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**ULTRASONOGRAPHIC FINDINGS**

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 (Canine and Feline)

- Gastroenterocolonopathy with segmental nonobstructive small bowel ileus
- Scant primarily peri Intestinal free fluid
- Sonographically unremarkable liver - no evidence of hepatic congestion
- Splenomegaly - likely benign, breed-associated hypersplenism suspected, potential for incidental hyperplasia, hematopoiesis, or splenitis is possible, neoplastic splenic criteria is considered unlikely
- Overtly normal cardiac structure with subjective LV hypocontractility - athletic state, systemic disease, hypothyroidism may present in this manner, no overt DCM criteria

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**REFERRING VET**

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In patients with chronic to recurrent gastrointestinal signs, considerations may include dysbiosis, dietary intolerance / food allergy, occult parasitism, infectious gastroenterocolitis, and inflammatory bowel disease, with potential for infiltrative intestinal neoplasia (considered less likely). German shepherds may be prone to alterations in gastrointestinal flora and dysbiosis. Further assessment may include a GI panel to include PLI/TLI/Cobalamin/Folate, as well as recheck fresh fecal analysis to rule out parasitic ova or recurrent Giardia.

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Although considered unlikely, resting cortisol level to assess for or rule out occult Addison's Disease could be considered.



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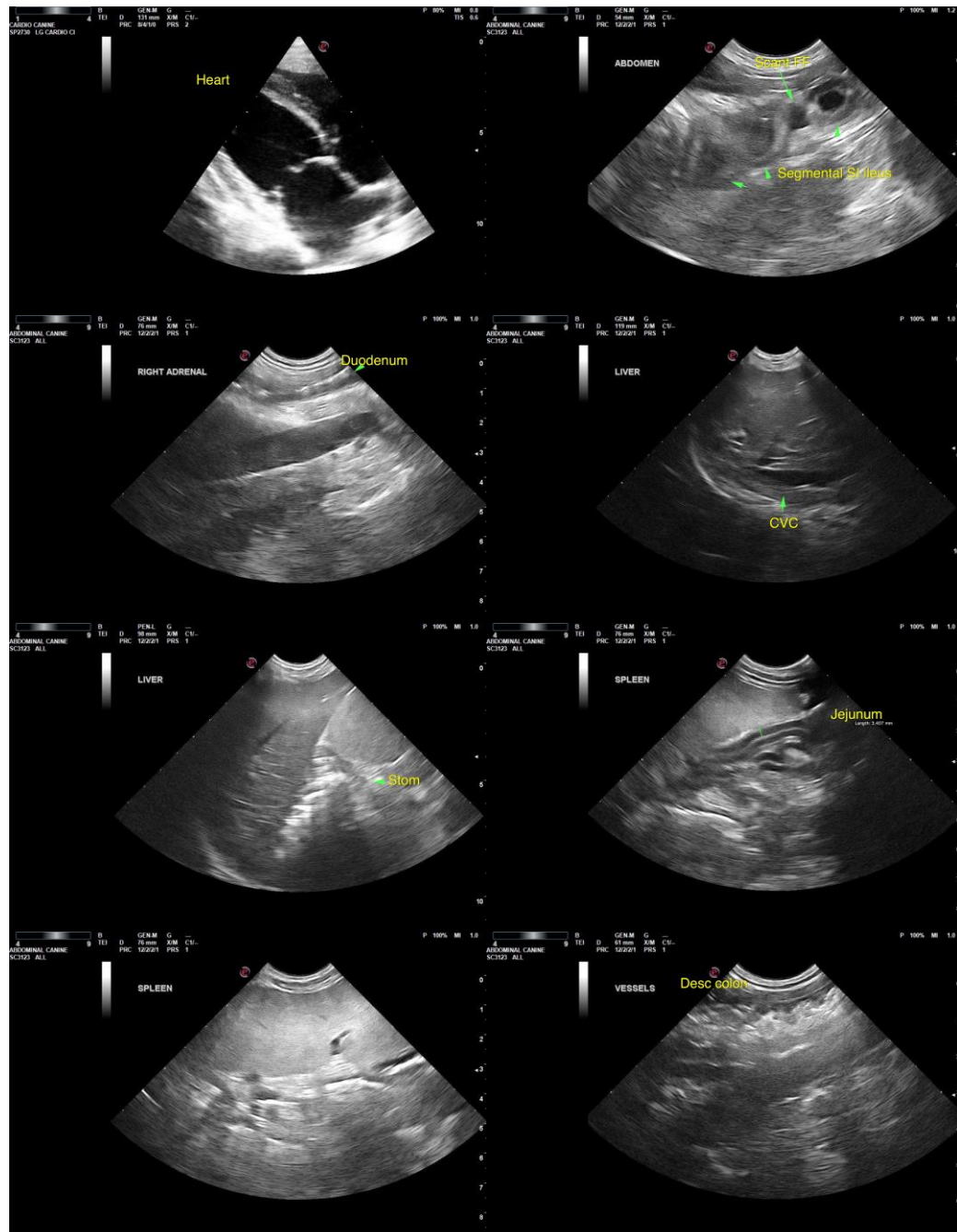
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Empirically, a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count 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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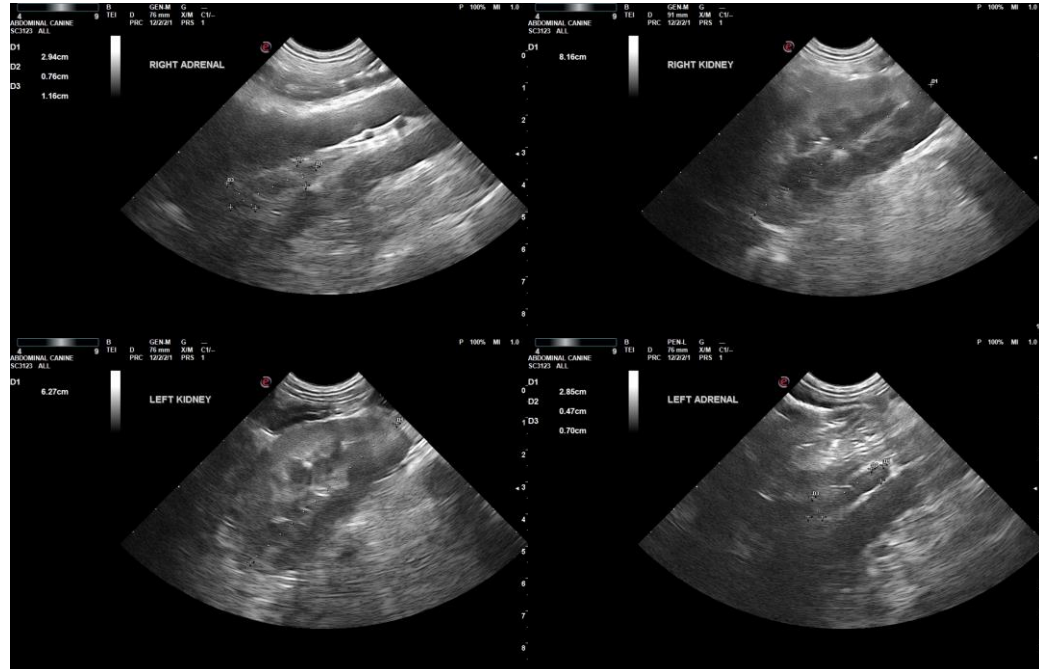
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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