



## PATIENT

Effie Tobias

## SPECIES

Canine

## BREED

West Highland  
Terrier

## SEX

FS

## AGE

9 years

## WEIGHT

10 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Jenna Walsh, CVT

## HOSPITAL NAME

Albany AH

## REFERRING VET

Dr. Spangler

## INVOICE

14777

## DATE

8/31/22

## PRESENTING CLINICAL SIGNS

Chronic weight loss, diarrhea. Seen at emergency clinic for hemorrhagic diarrhea due to clostridium. Continued soft stool and weight loss despite good appetite. Current Medications B-12 injection weekly Primary Question/Differential to Be Answered in This Exam Better assess chronic diarrhea - evidence of IBD, neoplasia, other

Abnormal PE/Chem/CBC/JA Results: Low cobalamin - 220 CBC, Chem, fecal parasitology, folate, PLI, TLI WNL

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

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.

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. The left kidney measured 3.9 cm in length. The right kidney measured 3.9 cm in length.

### Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.3 cm length x 0.38 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.7 cm length x 0.48 cm width at the caudal pole.

### 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.

### 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 non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.



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***Gastrointestinal***

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material. The stomach wall width measured 0.47 cm.

The small intestine presented intact wall layering and segmental maintained 1:3 muscularis/mucosa ratio with propensity for segmentally prominent mucosa layer. The duodenum wall measured 0.41 cm width. The jejunum wall measured 0.32 cm - 0.40 cm width.

The colon walls presented intact yet mildly prominent wall layering with mild thickened to echogenic submucosa. The colon was non-distended containing mild semi-formed to soft fecal matter, consistent with reported diarrhea.

***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.

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

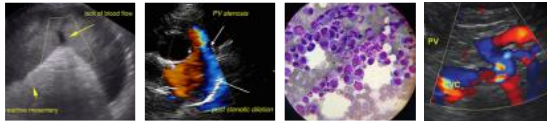
- Intact yet segmentally prominent small bowel walls
- Mild colitis pattern

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, no overt evidence of significant abdominal visceral, specifically gastroenterocolic, pathology. General considerations for chronic gastrointestinal signs and weight loss may include; dietary Intolerance / food allergy, occult parasitism, dysbiosis, IBD, low-grade to chronic pancreatitis which may present as sonographically normal, or less likely infiltrative gastrointestinal neoplasia.

The small intestinal exhibited subjective subtle mural changes which may suggest primary underlying inflammatory enterocolonopathy i.e., IBD. The decreased cobalamin levels also suggest distal small intestinal disease. In addition to cobalamin supplementation with monitoring of cobalamin levels, hydrolyzed diet trial with potential long-term dietary therapy, prophylactic deworming i.e., Panacur 50mg/kg PO SID for 5 consecutive days with potential repeat protocol in 3 weeks even with negative fecal testing, high colony count probiotics such as Provable, and as-needed GI support with assessment of clinical response is recommended.

Although considered unlikely, resting cortisol level to rule out occult Addison's Disease, could be considered. Endoscopic intestinal biopsies may be indicated if GI signs and weight loss continue despite recommended empirical therapy.



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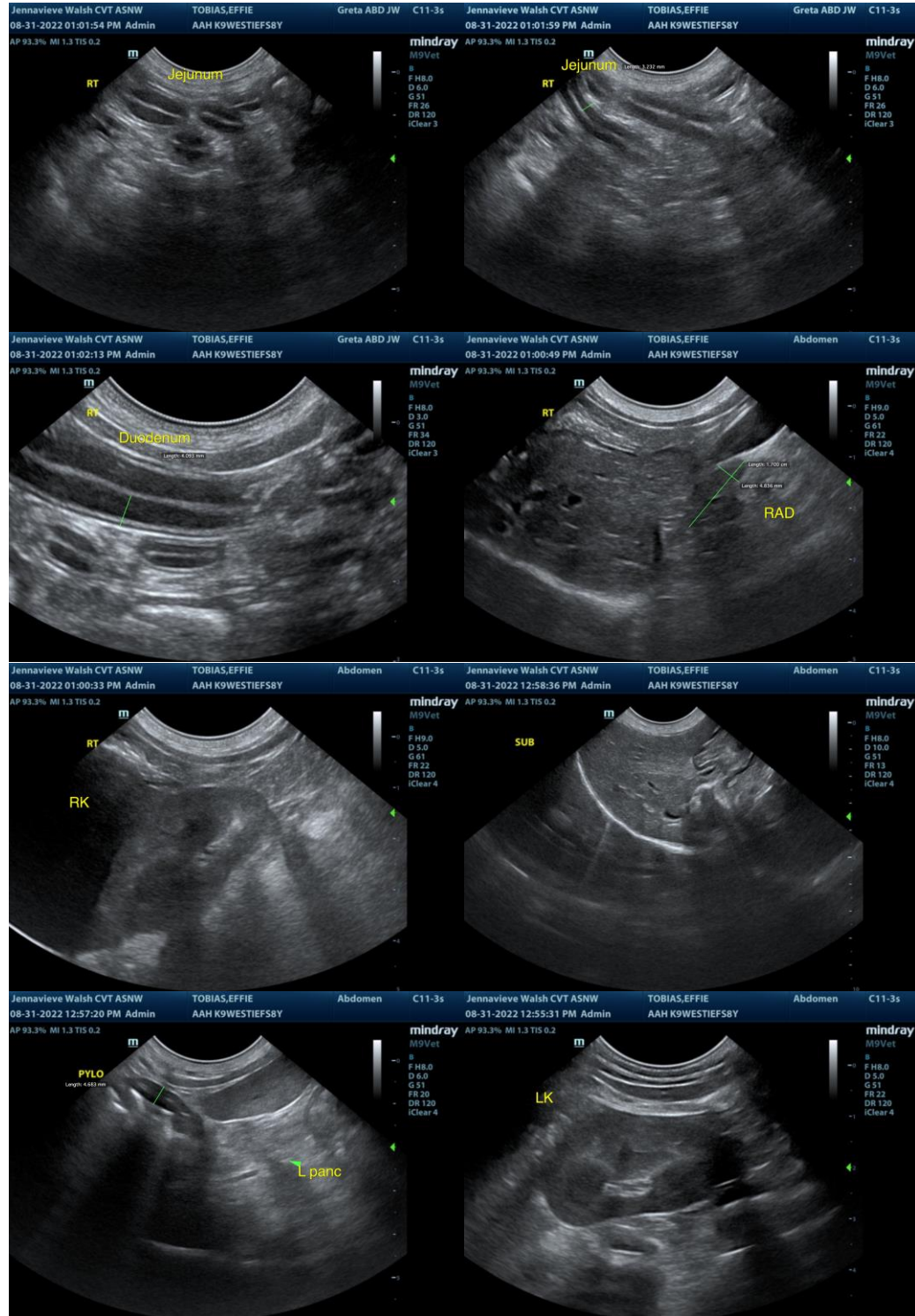
Dr. Spangler

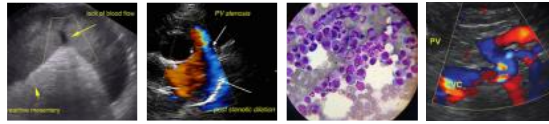
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com