



**PATIENT**

Kernel Lin

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

M/N

**AGE**

5 years

**WEIGHT**

70 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Sorbo

**HOSPITAL NAME**

Mill Brook Animal  
Clinic - VBF

**REFERRING VET**

Dr. Sorbo

**INVOICE**

16215

**DATE**

2/21/23

**PRESENTING CLINICAL SIGNS**

Presenting for refractory vomiting and diarrhea (mucus and fresh blood) for nearly a week. O suspect P ate fertilizer on several occasions on walks in a nearby park the past few days. Last ate yesterday. Seems interested in food. UTD on heartgard and nexgard.

Abnormal PE/Chem/CBC/UA Results: 10lbs weight loss in a year, 5 of those lbs lost prior to current illness, the remaining 5lbs in less than a week. Episcleral injection, >5% dehydrated, tacky, pink mm. Pyoderma of the ventrum, and the right ear (not canal, just pinna). Some, but not a lot, of discomfort on abdominal palpation. CBC/chem/lytes all WNL. Normal snap cPL. Suspect fertilizer ingestion with generalized gastrocolenteritis, but this sonographic study is to supplement normal lab findings.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and cystourethral junction 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 residual prostate was free of pathology.

No evidence of medial Iliac or sublumbar lymphadenopathy.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomodullary 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 7.0 cm in length. The right kidney measured 6.6 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 0.71 cm width at the caudal pole and 0.83 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 0.85 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.



**PATIENT**

***Gastrointestinal***

Kernel Lin

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.

**SPECIES**

Canine

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Minor segmental nonobstructive jejunal ileus was noted.

**BREED**

Golden Retriever

Normal visible colon wall layers were present with subjective semi-formed fecal matter.

**SEX**

M/N

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.

**AGE**

5 years

***Free Abdomen***

No omental masses, lymphadenopathy, or of peritoneal effusion were noted.

**WEIGHT**

70 lbs.

**ULTRASONOGRAPHIC FINDINGS**

- Structurally normal gastrointestinal tract with mild jejunal ileus
- Normal colon containing subjective semi-formed fecal matter

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, no sonographic evidence of significant visceral, specifically gastroenterocolic pathology as an obvious cause of the patient's gastrointestinal signs and weight loss was noted. Mild colitis is suspected while a more generalized gastroenterocolic disease, (given the refractory vomiting and weight loss) which may present as sonographically normal, is considered probable.

**IMAGING PERFORMED BY**

Dr. Sorbo

Further assessment may include a GI panel to include PLI/TLI/Cobalamin/Folate, as well as if not done three-view chest radiographs to rule out occult thoracic pathology as a contributing factor. Dietary indiscretion / food intolerance, structurally insignificant inflammatory gastroenterocolonopathy, occult parasitism, less likely infiltrative neoplasia, low-grade to chronic pancreatitis, or occult Addison's Disease are all potentials. Although considered unlikely given the normal adrenal presentation, resting cortisol level could be considered.

**HOSPITAL NAME**

Mill Brook Animal  
Clinic - VBF

**REFERRING VET**

Dr. Sorbo

Empirically, assessment of caloric plane +/- competitive eating environment (if clinically indicated), hydrolyzed diet trial, high colony count probiotics, cobalamin supplementation (if evidence of cobalamin levels <400), empirical deworming and an assessment of gastrointestinal response with monitoring of weight going forward would be reasonable. Upper and lower endoscopic biopsies may be indicated pending additional diagnostics and if persistent gastrointestinal signs and/or weight loss are noted. No sonographic evidence of intraabdominal neoplastic criteria was noted.

**INVOICE**

16215

**DATE**

2/21/23



**PATIENT**

Kernel Lin

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

M/N

**AGE**

5 years

**WEIGHT**

70 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Sorbo

**HOSPITAL NAME**

Mill Brook Animal  
Clinic - VBF

**REFERRING VET**

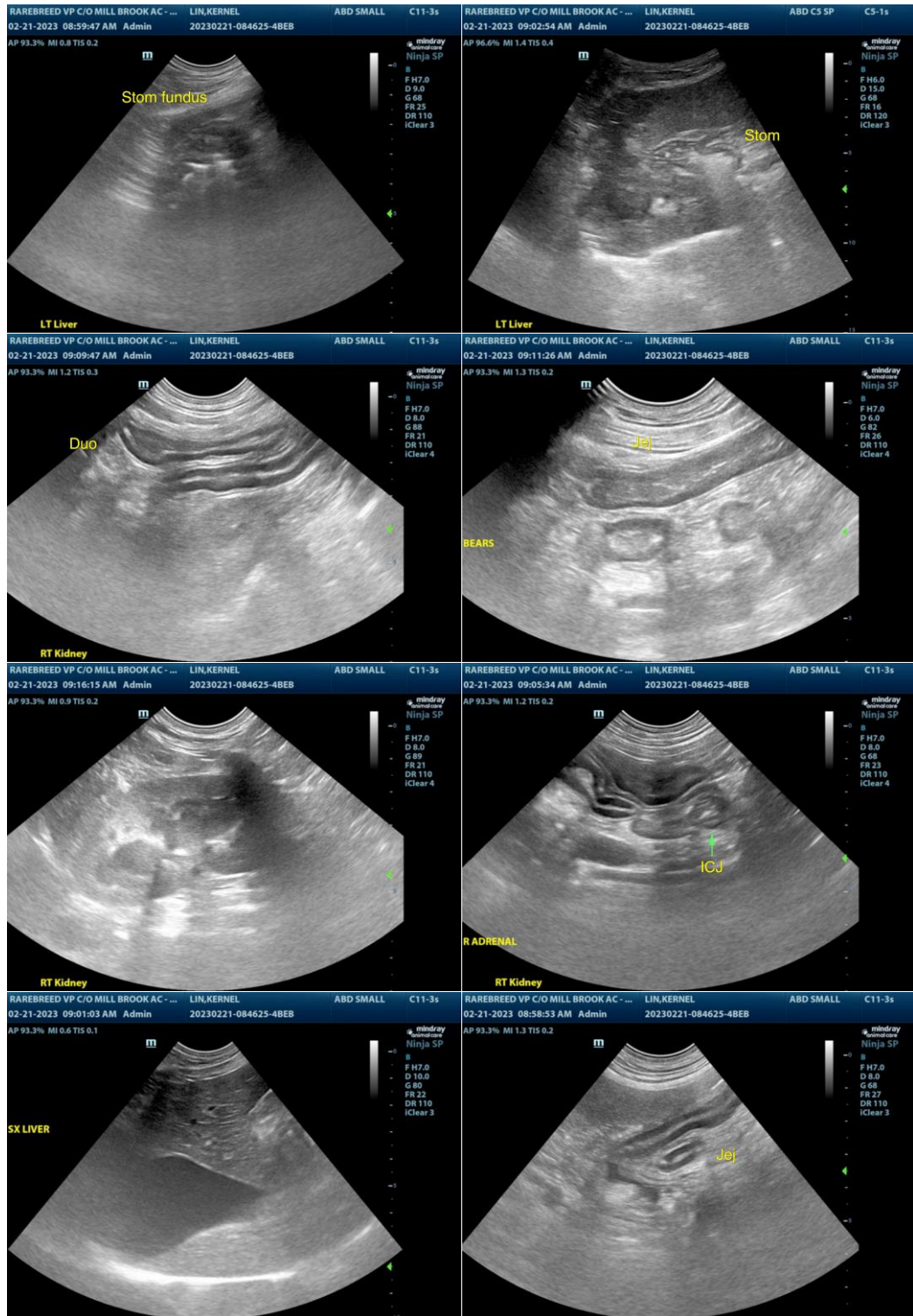
Dr. Sorbo

**INVOICE**

16215

**DATE**

2/21/23





## PATIENT

Kernel Lin

## SPECIES

Canine

## BREED

Golden Retriever

## SEX

M/N

## AGE

5 years

## WEIGHT

70 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Sorbo

## HOSPITAL NAME

Mill Brook Animal  
Clinic - VBF

## REFERRING VET

Dr. Sorbo

## INVOICE

16215

## DATE

2/21/23



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