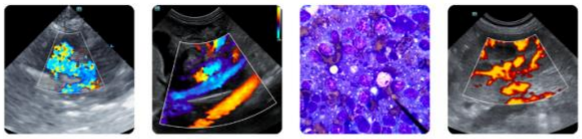


PATIENT

Bennie Klima

SPECIES

Canine

BREED

Yorkshire Terrier Mix

SEX

Neutered Male

AGE

2018

WEIGHT

7

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

IMAGING PERFORMED BY

Rebekah Jakum, CVT, ARDMS/RVT

HOSPITAL NAME

Alburtis Animal Hospital

REFERRING VET

Dr. Smith

INVOICE

14675

DATE

03/26/26

PRESENTING CLINICAL SIGNS

- Severe panhypoproteinemia with hypocholesterolemia noted "incidentally" at annual exam on 2/26/2026. Patient was reported to be slightly "less himself" but not lethargic. Normal appetite and no vomiting/diarrhea reported. Had progression with development of peritoneal effusion requiring therapeutic abdominocentesis and albumin transfusion at referral center on 3/13/2026.
- Medication: i/d low fat diet

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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 change were noted.

Normal size and margination was 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 3.4 cm in length. The right kidney measured 3.6 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 0.44 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 0.35 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.

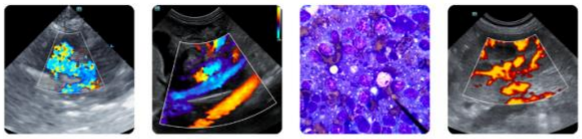
Liver & Gallbladder

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 mild nonorganized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

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.



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Subjective thickened to generalized increased intestinal mucosa echogenicity with diffuse mucosa speckling to echogenic mucosal striations were present. Intestinal wall layering was thickened with normal / mild altered 1:3 muscularis / mucosa ratio. There was no evidence of an obstructive pattern or foreign material. The appearance of the small intestine is most consistent with protein losing enteropathy or lymphangiectasia. There was no evidence of infiltrative or neoplastic intestinal disease which is considered unlikely but cannot be ruled out without full thickness or endoscopic biopsies. Segmental mildly hyperechoic intestinal mucosal speckling.

Normal visible colon wall layers were present with soft fecal matter.

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.

Free Abdomen

Generalized omental hyperechogenicity with minor volume of effusion present.

ULTRASONOGRAPHIC FINDINGS

- Thickened intestine exhibiting mucosal speckling.
- Normal volume liver.
- Nonorganized gallbladder debris (non-mucocele).
- Sonographically normal kidneys/adrenals.
- Generalized omental hyperechogenicity and minor effusion.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given no evidence of hepatic disease and assuming no evidence of proteinuria, intestinal protein loss consistent with protein losing enteropathy is probable. Considerations may include inflammatory disease, lymphangiectasia or infiltrative disease.

A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. Correlation with urinalysis is recommended. Intestinal biopsy is required for a definitive diagnosis yet contraindicated with albumin level less than 2.0.

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

OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitary effusions, monitor concurrent 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.
High colony count probiotic Proviable or Visbiome
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

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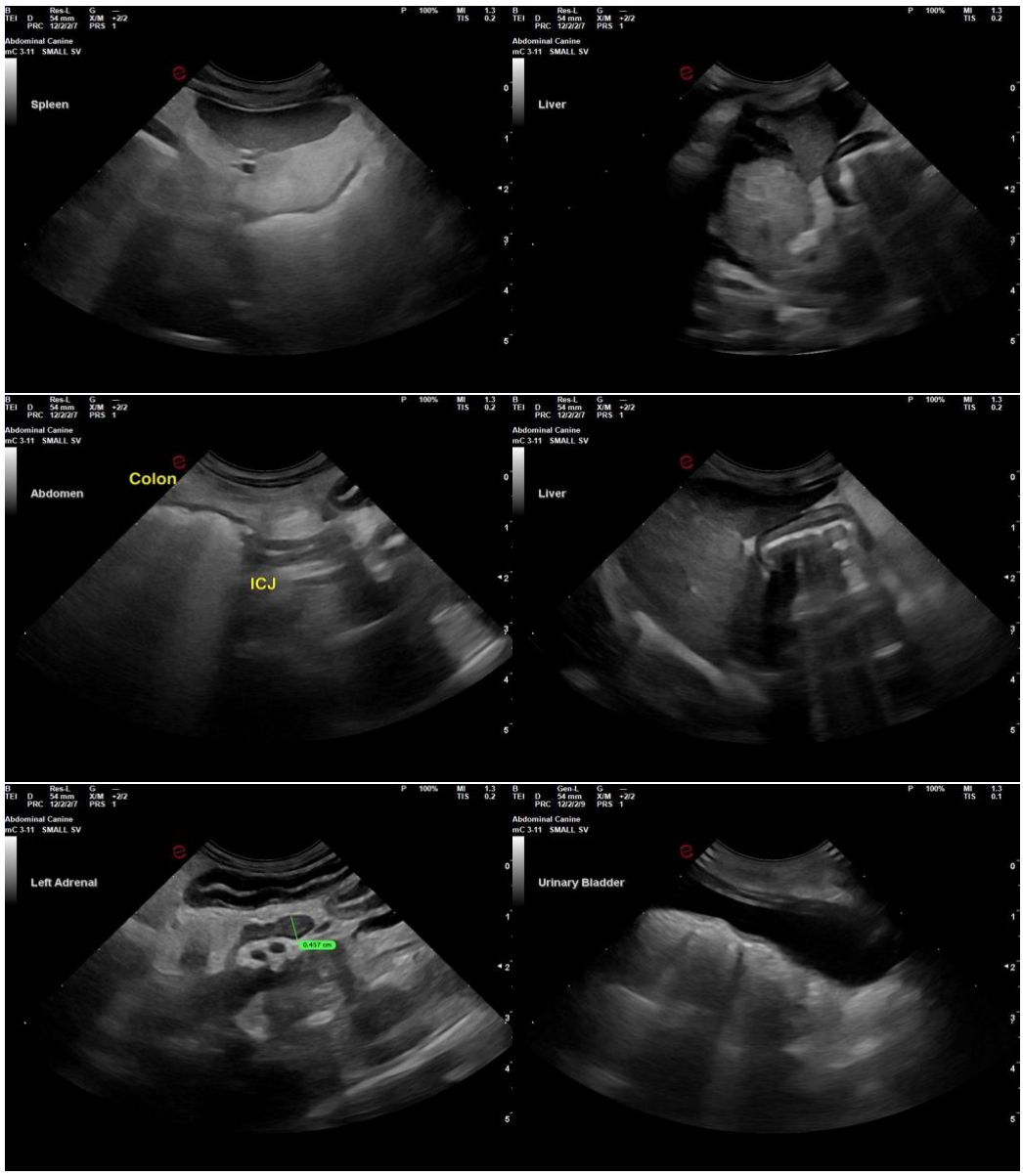
Diet: Highly digestible high quality protein, low fiber, low fat diet (< 15% of dry matter). Hydrolyzed protein or novel protein. Purina HA or Royal Canine HP or similar.
Prednisone or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m^2 Q 24-48 hours.
Cobalamin (B12) 250-1500 ug/dog weekly x 6 weeks.
Calcium supplementation if necessary.
Aspirin 0.5-1 mg/kg/day **or Clopidogrel** (Plavix) 1-5 mg/kg/day.



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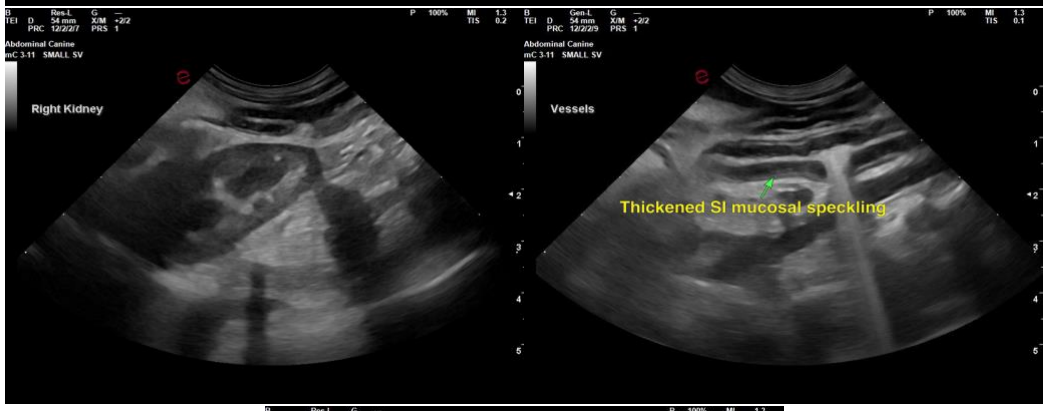

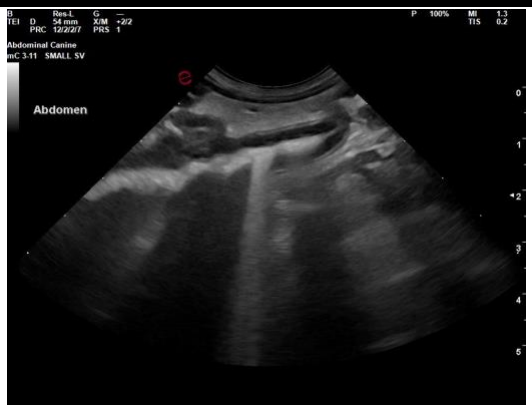

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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