

**DATE PRESENTING CLINICAL SIGNS**

1/12/23

Client notes bloating belly. No other clinical signs of illness.  
Taught abdominal palpation. Free fluid noted on ultrasound for cysto collection of urine.

**PATIENT**

Andie Maxson

Current Medications: Nothing started. Plan pending results. Considering minimally low-fat diet, possible steroids.

Lab Results: Normally concentrated urine with no proteinuria. ALB 1.3.

Radiographs: Loss of abdominal detail.

**SPECIES**

Canine

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Requested.

**BREED**

Yorkshire Terrier

Imaging Performed By: Stephanie Warga RDCS, RVT.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**

Spayed Female

**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

**AGE**

9/8/14

The left kidney has a normal shape and size (3.12 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

7.28 Pounds

The right kidney has a normal shape and size (3.42 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.34 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**HOSPITAL NAME**

Eastern AH

The right adrenal gland is normal in size measuring 0.32 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**REFERRING VET**

Dr. Warner-Jones

**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**INVOICE**

44113

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall thickness is moderately increased. Bowel loops follow a typical curvilinear path. Some areas have reduced detail of wall layering. Jejunum wall measures 0.365 cm. Duodenum wall measures 0.41 cm. Mild mucosal speckling and diffuse mucosal fogging noted in the duodenum. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

There is a large amount of anechoic free fluid. No lymphadenopathy noted. The omentum is diffusely hyperechoic.

### ***Other***

A brief view of the heart was submitted. No significant pericardial effusion was seen.

## **ULTRASONOGRAPHIC FINDINGS**

- Diffusely thickened/prominent small intestine with mild mucosal speckling and diffuse mucosal fogging – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia.
- Large volume anechoic free fluid – This is likely secondary to the hypoalbuminemia.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

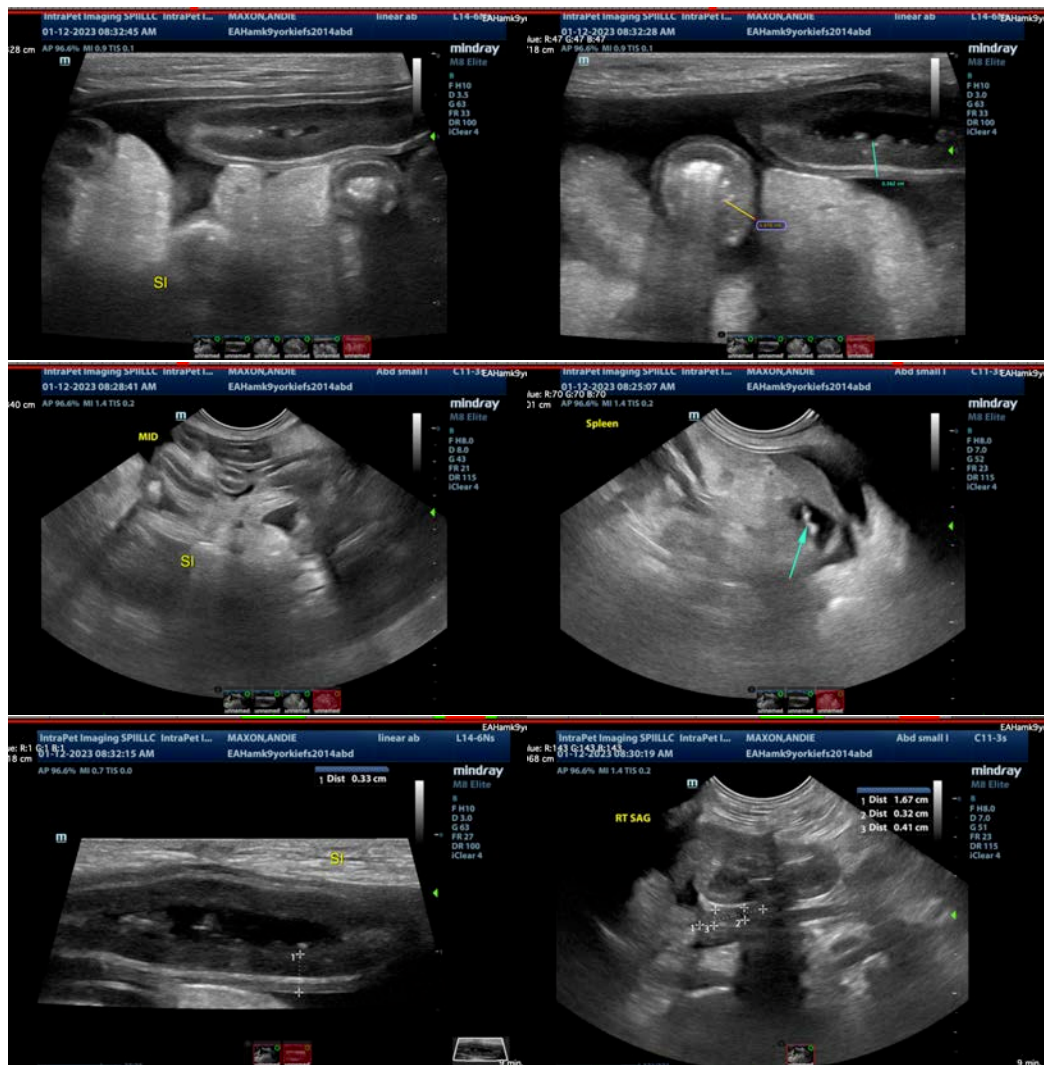
There is a large volume of anechoic free fluid present, most consistent with the hypoalbuminemia reported.

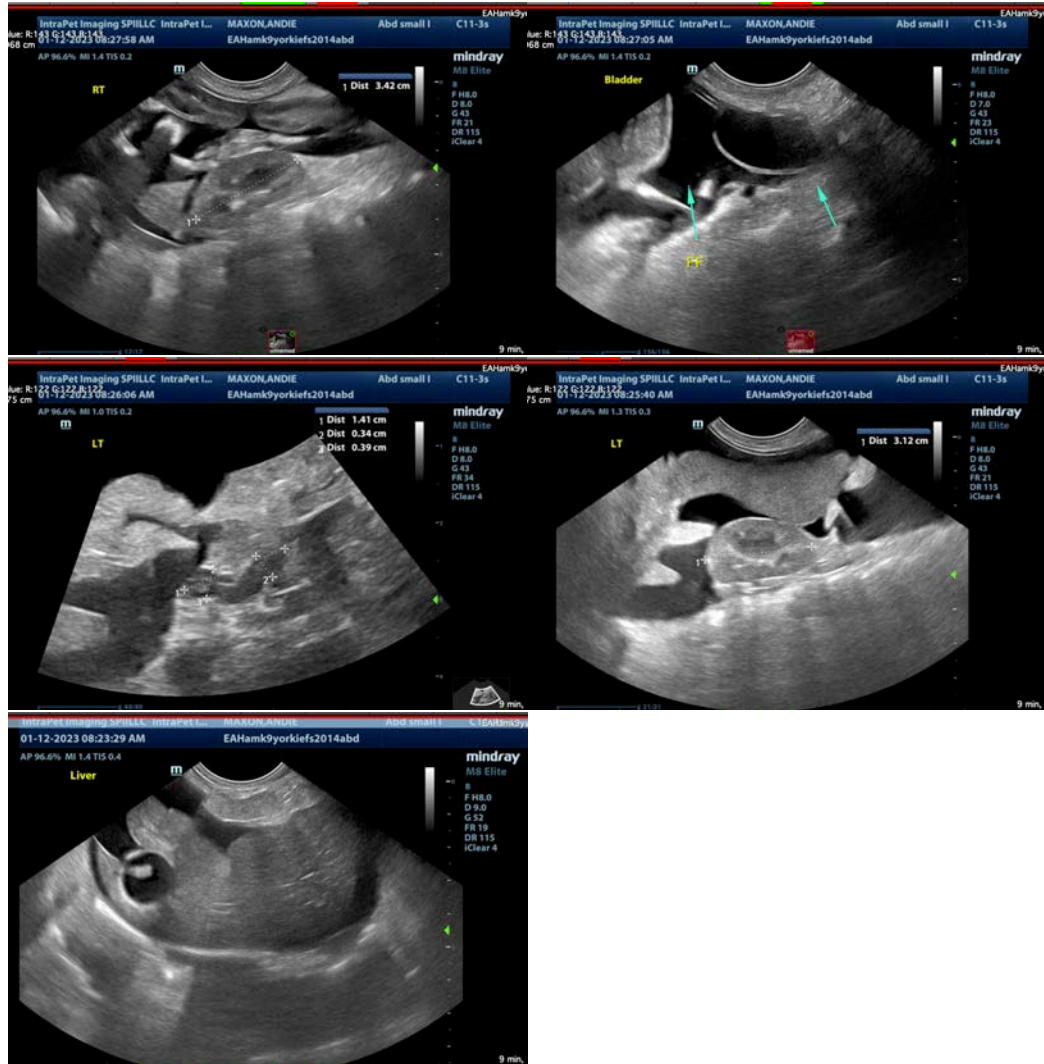
The small intestine appears thickened and there is some mild mucosal speckling and mucosal fogging visualized. These findings are most consistent with (but not diagnostic of) a protein losing enteropathy. The most common causes for protein losing enteropathy would include severe IBD, lymphangiectasia, or underlying neoplasia. Unfortunately, these processes must be differentiated based on biopsy results. There are no strong indicators consistent with a neoplastic process at this time.

Additionally, a liver function test is recommended to rule out any contribution of the hypoalbuminemia due to liver dysfunction.

- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Consider either a novel protein/hydrolyzed protein prescription diet, or an ultra-low-fat diet.

- Recommend symptomatic treatment for GI upset.
- Ideally, recommend upper and lower GI endoscopy to further evaluate, as the diagnosis will greatly affect treatment strategies.
- Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.
- If additional diagnostics are not possible, then consider an ultra-low-fat diet and an anti-inflammatory dose of Prednisone (0.5 mg/kg per day) until the patient is stable enough for endoscopic biopsies.





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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopath.com