

**DATE PRESENTING CLINICAL SIGNS**

8/13/21

History: Seen 8/6/2021 for liquid diarrhea, no blood, no vomit. Empirically treated with Metronidazole, Provable and Purina EN. No improvement. Recheck on 8/10/2021. 6lbs weight loss noted over last several weeks. Still liquid diarrhea, no blood, no vomit, poor appetite. BCS = 4/9. Lab results - Albumin 1.5, Globulin 1.9. Suspect PLE. UA with reflex UPC pending.

**PATIENT**

Manny Rowe

**SPECIES**

Canine

**BREED**

French Bulldog

**SEX**

Neutered Male

**AGE**

4/3/14

**WEIGHT**

35 Pounds

**INTERPRETED BY**

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

**HOSPITAL NAME**

Hickory Vet Hospital

**REFERRING VET**

Dr. Silcox

**INVOICE**

24679

Current Medications: Metronidazole 250mg BID, Tylosin BID, Provable, 25mg Aspirin BID.

Lab Results: Albumin 1.5, Globulin 1.9. Suspect PLE. UA with reflex UPC pending.

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: not needed

Stat Report: not requested

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****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.

The prostate is normal in size (0.83 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (5.65 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.3 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.72 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.

The right adrenal gland is normal in size measuring 1.0 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.

**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.

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. 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 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/moderate fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.71 cm. Jejunum wall measures 0.45 cm. Some areas have reduced detail of wall layering and mucosal speckling. 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 pancreas is large and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

Evaluation of the peritoneal cavity revealed a small volume of anechoic fluid. No lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is generally of increased echogenicity.

## **PRIMARY FINDINGS**

- Thickened small intestine with reduced detail of layering in some areas and mucosal speckling – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia. Bright mucosal speckling has been proposed to represent dilated lacteals or focal accumulation of mucus, cellular debris etc.. in the mucosal crypts of the small intestine.
- Large, mottled, slightly hypoechoic pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation. Some of these changes are also likely due to edema secondary to the large amount of effusion present.
- Large volume anechoic abdominal fluid – ascites is most likely secondary to hypoalbuminemia reported.

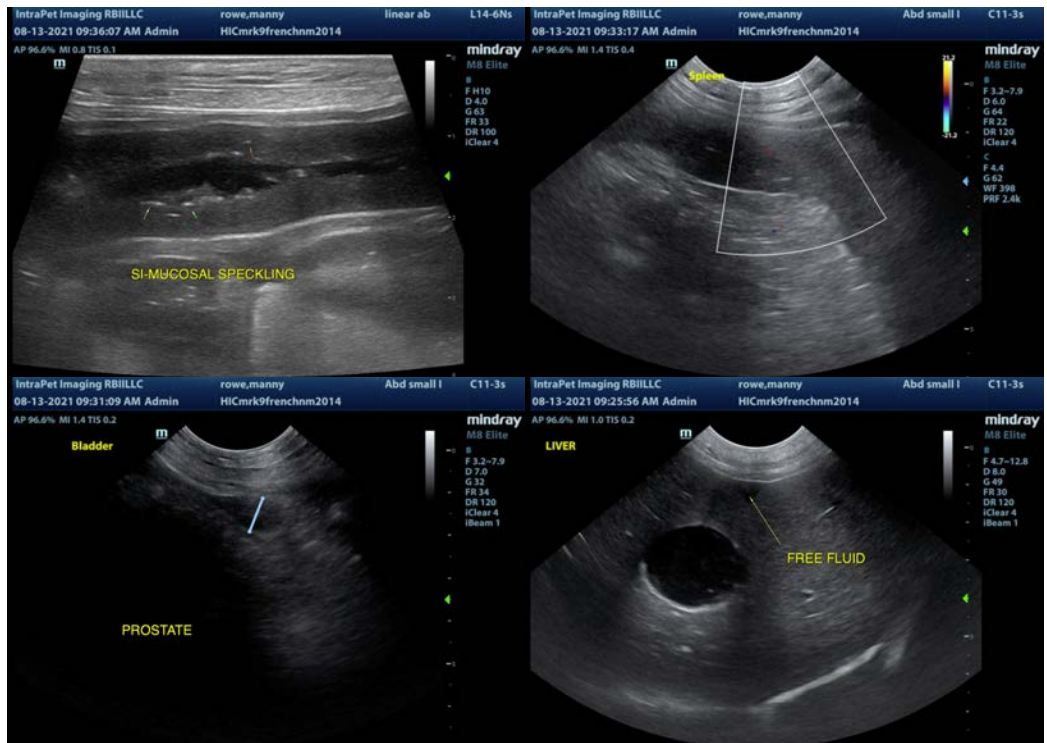
## **SECONDARY FINDINGS**

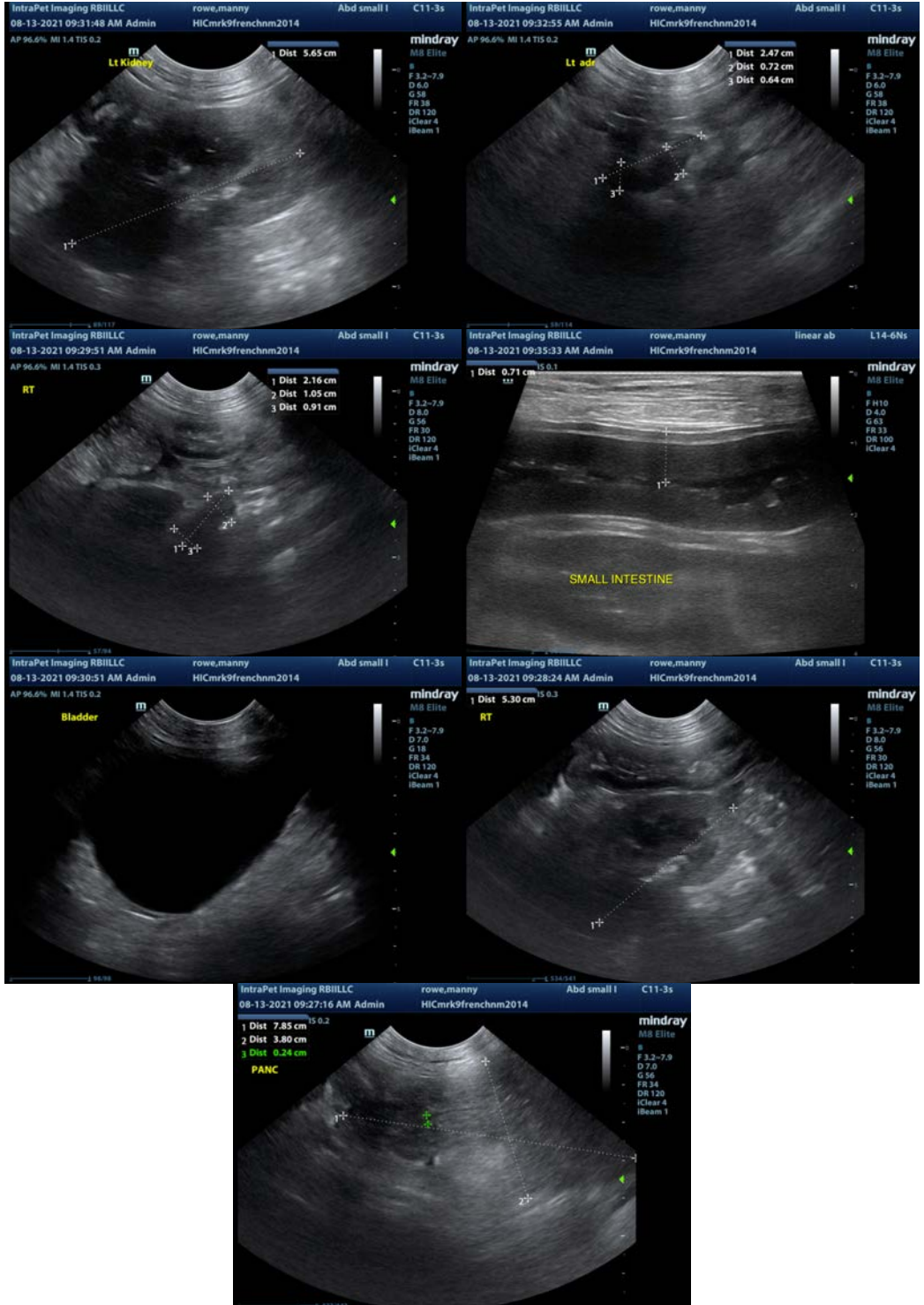
- Mildly heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I agree with your assessment that this is likely a protein losing enteropathy. The bowel appears thick and there is mucosal speckling present, which can sometimes be associated with lymphangiectasia and severe IBD. Recommend a GI panel to evaluate for concurrent B12 deficiency, dysbiosis, etc., and strongly recommend GI biopsies to obtain a more definitive diagnosis. To be safe, recommend baseline cortisol and liver function test to make sure liver dysfunction is not contributing to the hypoalbuminemia as well as fecal parasite testing.

Recommend thoracic radiographs to look for effusion or any evidence of a neoplastic change. It is smart to have this dog on a platelet inhibitor. In dogs with GI disease, I typically use Plavix at 1-2 mg/kg once daily due to possible reduced risk for GI ulceration. Aspirin is also a good alternative, but should be dosed at 0.5 mg/kg once daily. This often requires compounding (many different platelet inhibiting protocols exist, this is just what I use). It is excellent that you have a UPC pending to make sure there is no concurrent renal losses. This can be a challenging disease to manage. If possible, obtaining a diagnosis can help immensely.





**The information and recommendations provided are based on the images presented by the referring veterinarian. 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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