



## DATE PRESENTING CLINICAL SIGNS

2/24/26

## PATIENT

Hannah Webb

**Patient History:** Presenting Complaint: Hannah presents for bloody diarrhea, lethargy, and inappetence starting this morning. Patient History: - Abdominal distension for past couple of weeks - Decreased frequency of defecation with abdominal distension - Intermittent appetite - Normal urination and water consumption - Chicken allergy - Hyperactive, frequently jumps on/off furniture and stairs - Lives with family while client at college - No known trauma. Icteric.

## SPECIES

Canine

## BREED

Yorkshire Terrier

## SEX

Spayed Female

## AGE

2/23/12

## WEIGHT

11.2 lbs

## INTERPRETED BY

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

## HOSPITAL NAME

Animal Emergency  
Hospital

## REFERRING VET

Dr. Jones

## INVOICE

73221

**Current Medications:** None listed.

**Labwork Results:** Labwork attached.

**Date of Previous IntraPet Ultrasound:** No previous.

**Sedation:** Not required to complete full diagnostic ultrasound.

**Stat Report:** Not requested.

**Imaging Performed by:** Rachel Brilhart, RDMS.

## 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 left kidney has a normal shape and size (3.78 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.

The right kidney has a normal shape and size (4.01 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.

### Adrenal Glands

The left adrenal gland is normal in size measuring 0.53 cm at the cranial pole and 0.57 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 0.82 cm at the cranial pole and 0.76 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. There is an isoechoic/subtle mixed echogenicity nodule in the parenchyma measuring 0.62 cm.

### Liver

The liver is subjectively small in size with slightly irregular 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 gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains mild/moderate fluid and gas. The gastric wall appears slightly prominent/thickened at 0.77 cm with intact wall layering. 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 increased. Bowel loops follow a typical curvilinear path. Duodenum wall measures 0.41 cm. Jejunum wall measures 0.32 cm. Visualized peristalsis appears appropriate. Some sections of bowel appear thickened with mucosal fogging.

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 in the right limb. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

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

### ***Other***

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

## **PRIMARY FINDINGS**

- Subjectively small, irregular, 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.
- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.
- Diffusely thickened small intestine with mucosal fogging – Findings are concerning for a possible primary enteropathy.
- Moderate volume free abdominal fluid.

## **SECONDARY FINDINGS**

- Poorly defined iso- to mixed echogenicity nodule in the spleen – There is a non-cavitated, mixed echogenicity splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Prominent, mottled right limb of the pancreas – Findings are most consistent with chronic pancreatic remodeling. Mild chronic pancreatitis is possible. A neoplastic process is thought less likely.
- Prominent/mildly thickened gastric wall with intact wall layering – The stomach wall thickening could be consistent with inflammation, edema, infiltrative neoplasia, imaging artifact due to rugal folds, other.

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

The liver subjectively appears somewhat heterogeneous, small and irregular in shape. This combined with the liver enzyme elevations is concerning for a primary hepatopathy. There is a moderate amount of debris in the gallbladder, but no evidence of severe pathology.

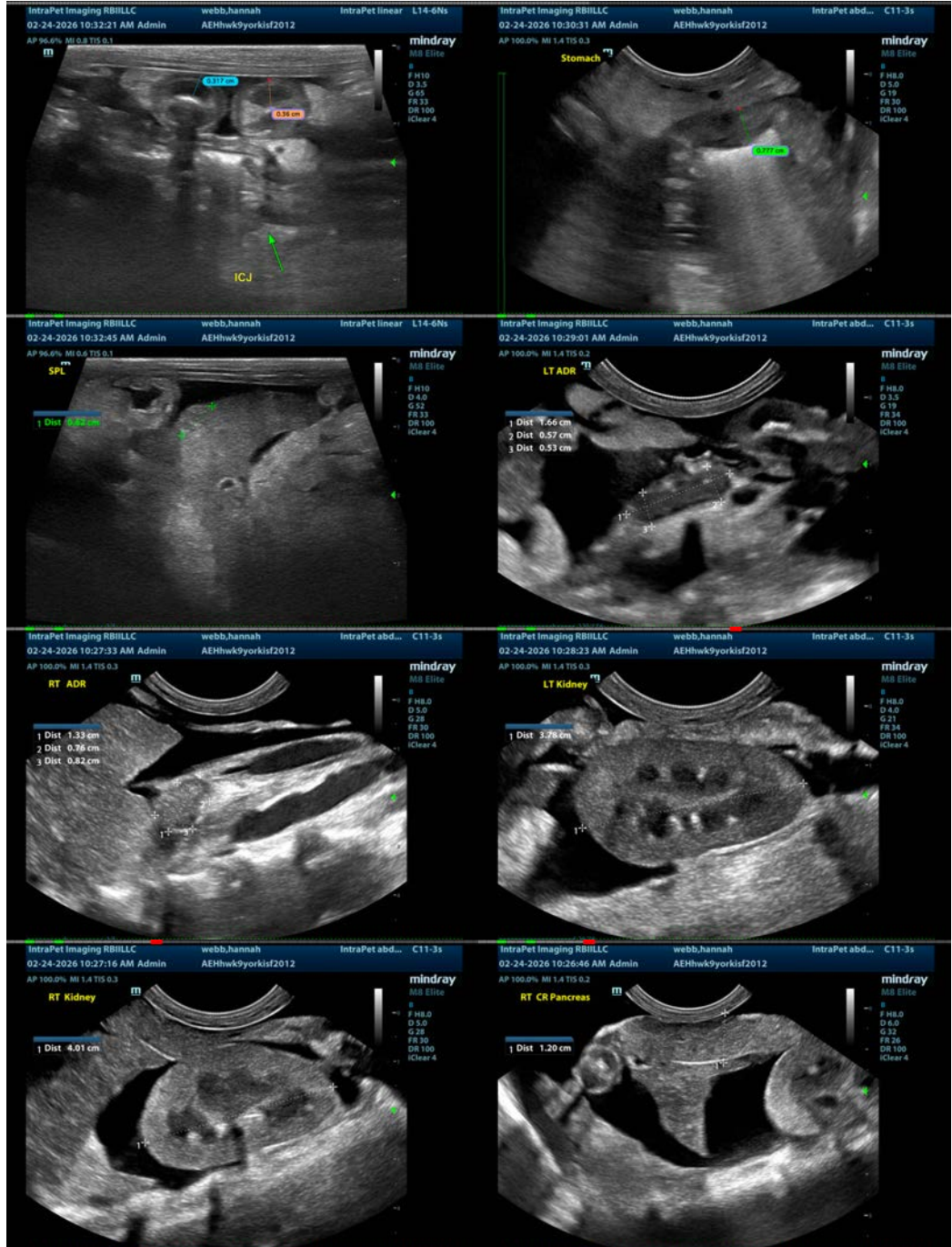
There is a moderate amount of free fluid evident in the abdomen, and the small intestine appears somewhat thickened with some mucosal fogging. Some of the thickening could be secondary to edema from the free fluid, but a primary concurrent enteropathy is also to be strongly considered. Consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate. If there is a significant B12 deficiency, etc., this would be supportive of a primary enteropathy.

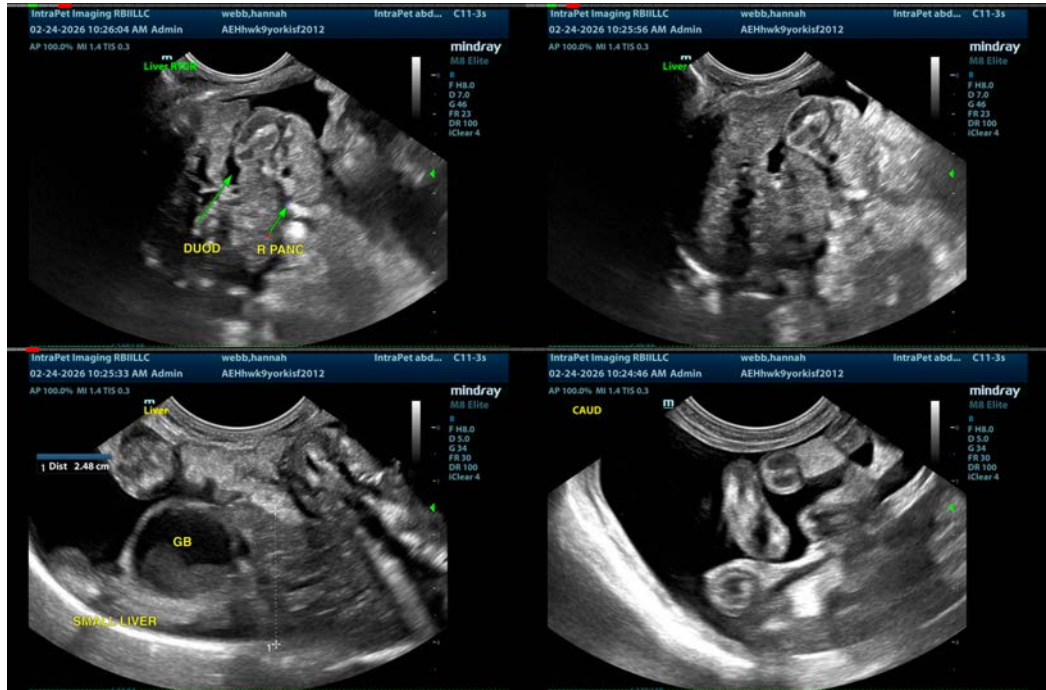
My suspicion is that there could be a concurrent hepatopathy and enteropathy present. Recommend a urine protein to creatinine ratio and urinalysis to look for any evidence of significant proteinuria contributing to the low albumin levels reported. Consider treatment for acute liver injury with Ursodiol, Denamarin, and a course of antibiotics, as well as measuring clotting times (prolonged clotting times would be supportive of significant liver dysfunction).

Additionally, I would consider switching to an ultra low-fat hydrolyzed protein prescription diet (Royal Canin has a combination diet) if the patient will eat this. Ultimately, biopsies of the GI tract and liver may be necessary to obtain a more definitive diagnosis. These findings could be seen with chronic progressive liver disease.

A significant anemia is present. Recommend a blood smear and pathologist review to look for any evidence of hemolysis and consider antacid therapy and treatment for a hemorrhagic colitis. This patient may need to be reassessed once it is stabilized and empirically treated to better determine the next steps in evaluation.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement (disregard if this has already been done).





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.

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