

**DATE PRESENTING CLINICAL SIGNS**

8/9/22 O had concerns for chronic diarrhea. Severity waxes and wanes. Also, frequent vomiting. On exam pet has lost about 6 lbs. Other than weight loss and mild gingivitis on exam, no other obvious abnormalities.

**PATIENT**

Harry Goldsmith

Current Medications: None.

Lab Results: CBC: WBC 16.1 (3.5-16.0), Neut 10304 (2500-8500), Eos 1288 (0-1000) SuperCHEM: ALB 4.1 (2.5-3.9), BUN 40 (14-36), PSL 40 (8-26)

T4 2.0 (0.8-4.0)

**SPECIES**

Feline

P's labwork currently does not indicate why p would have dropped such a significant amount of weight. The thyroid value is normal at this time; therefore, p is not hyperthyroid as initially suspected. The slight increases in the CBC are likely due to stress and not of concern at this time. And the increases in BUN (without increase in Creat) could indicate very early kidney failure; however, more likely dehydration with the slight increased ALB. PSL is very non-specific in felines and unlikely pancreatitis due to the presenting clinical signs.

**BREED**

DSH

Date of Previous IntraPet Ultrasound: No previous.

**SEX**

Neutered Male

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

4/27/10

**Urinary System**

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

**WEIGHT**

9.16 Pounds

The left kidney has a normal shape and size (3.24 cm) with mild pyelectasia of 0.34 cm and a small nephrolith measuring 0.29 cm visualized within the renal pelvis. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

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

The right kidney is borderline large in size at 4.51 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. Dystrophic mineralization is noted at the corticomedullary junction. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**IMAGING PERFORMED BY**

Stephanie Warga  
RDMS, RVT

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.36 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**

Fullerton AH

The right adrenal gland is normal in size measuring 0.37 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. Unger

**Spleen**

The spleen is subjectively normal in size (0.89 cm in width at the level of the hilus), 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**

40256

### ***Liver***

The liver is large in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in 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 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 <0.36cm 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 normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a significantly prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measured 0.39 cm. Jejunum wall measured 0.35, 0.32 cm. 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 mildly prominent and hypoechoic as 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***

There is a small amount of free abdominal fluid. There is a significant mesenteric lymphadenopathy, particularly at the mesenteric root, with lymph nodes measuring 0.47, 0.43, and 0.60 cm. The omentum is generally increased, particularly in the region around the mesenteric lymph nodes.

## **ULTRASONOGRAPHIC FINDINGS**

- Echogenic debris visualized in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Irregular kidneys with decreased corticomedullary distinction. There is mild pyelectasia and a small non-obstructive nephrolith visualized in the left kidney, and dystrophic mineralization at the corticomedullary junction of the right kidney. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Recommend urinalysis and culture and continued monitoring of the left kidney for possible shifting of the nephrolith to an obstructive position.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Large, hyperechoic liver – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy.

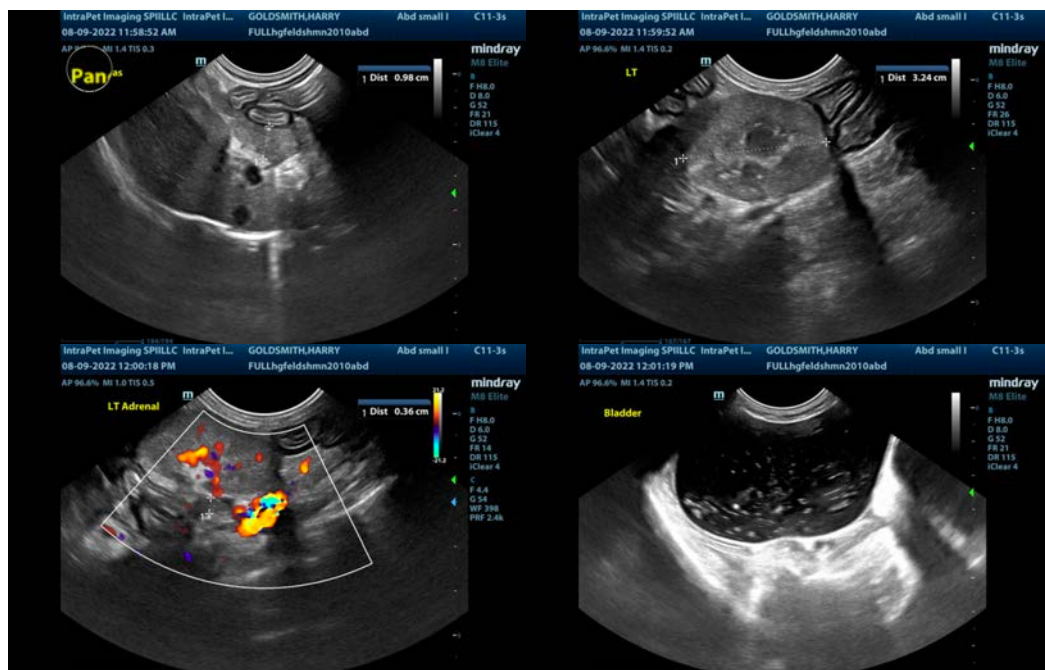
- Thickened small intestine with prominent muscularis layer – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia.
- Small amount of free abdominal fluid.
- Mild/moderate mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

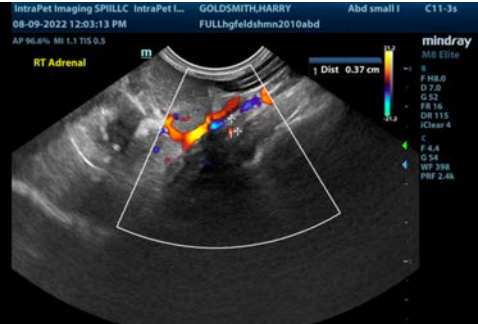
### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The bowel is diffusely thickened with a very prominent muscularis layer and surrounding prominent mesenteric lymph nodes. These changes are concerning for primary gastrointestinal disease. Consider a fine needle aspirate of a mesenteric lymph nodes. Additionally, you could consider sampling of the free abdominal fluid and submission for fluid analysis and cytology. If a cytologic diagnosis cannot be made, consider biopsies of the GI tract and lymph nodes in addition to 3-view thoracic radiographs.

The changes observed in the kidneys are likely consistent with chronic progressive renal disease associated with age. There is a small nephrolith in the renal pelvis of the left kidney, but no overt obstruction at this time. Recommend continued monitoring in addition to a urinalysis and culture.

The liver appears somewhat hyperechoic on today's scan. There is the possibility that there is some degree of hepatic lipidosis due to the significant weight loss present. If liver enzyme elevations are present, you could consider a fine needle aspirate, provided coagulation parameters are normal. If significant nutrition is not obtained, a feeding tube may need to be considered.





**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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