



**DATE PRESENTING CLINICAL SIGNS**

4/6/23

Presented on 12/14/22 for exam and vaccines. A 1 lb weight loss was detected. Senior bloodwork was recommended at that time and O elected to wait. O returned 3/2/23 for senior bloodwork which showed mildly elevated FT4 and normal T4. Additional weight loss was noted at that time (1/2 lb). O was looking to pursue I131 treatment but was told he was not a candidate. They felt his weight loss was too rapid and Ft4 was potentially from the sample sitting since the FT4 was added on. They recommended looking elsewhere for the cause of the weight loss and suggested abdominal ultrasound, chest x-rays and GI panel. O to pursue ultrasound and chest x-rays today.

**PATIENT**

Gilley Nierhaus

**SPECIES**

Feline

Current Medications: Miralaz PRN.  
Lab Results: T4- 2.8 (0.8-4.7), FT4-3.3(0.7-2.6), Ft4-42.5 (9-33.5)  
Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.  
Imaging Performed By: Stephanie Warga RDCS, RVT.

**BREED**

DSH

**SEX**

Neutered Male

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**AGE**

8/10/09

**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.

**WEIGHT**

12.3 Pounds

The left kidney has a normal shape and size (4.18 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 hydronephrosis. Renal vasculature is normal.

**INTERPRETED BY**

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

The right kidney has a normal shape and size (3.93 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 hydronephrosis. Renal vasculature is normal.

**HOSPITAL NAME**

Fullerton AH

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.61 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.

**REFERRING VET**

Dr. Unger

The right adrenal gland is normal in size measuring 0.47 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.

**INVOICE**

46467

**Spleen**

The spleen is subjectively normal in size (0.98 cm), 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 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 <0.36cm 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 prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.38 cm. Jejunum wall measures 0.33 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 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***

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are clusters of enlarged, irregular mesenteric lymph nodes around the mesenteric root with surrounding hyperechoic mesentery. In these regions, the lymph nodes measure 0.61, 0.80, 0.52, and 0.47 cm in diameter.

## **ULTRASONOGRAPHIC FINDINGS**

- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Mildly prominent muscularis layer to the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.
- Clusters of large hypoechoic mesenteric lymph nodes with surrounding hyperechoic mesentery – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

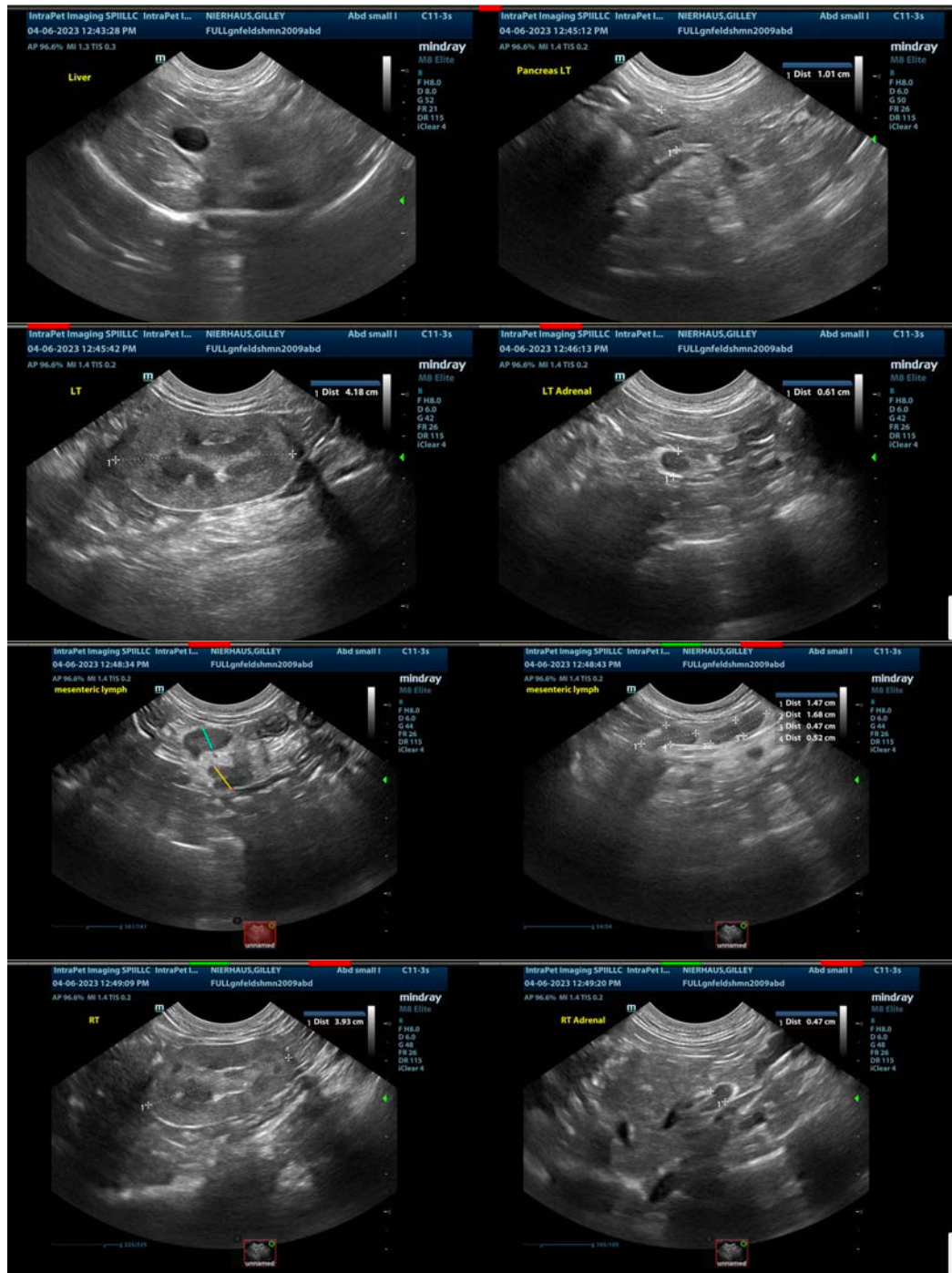
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

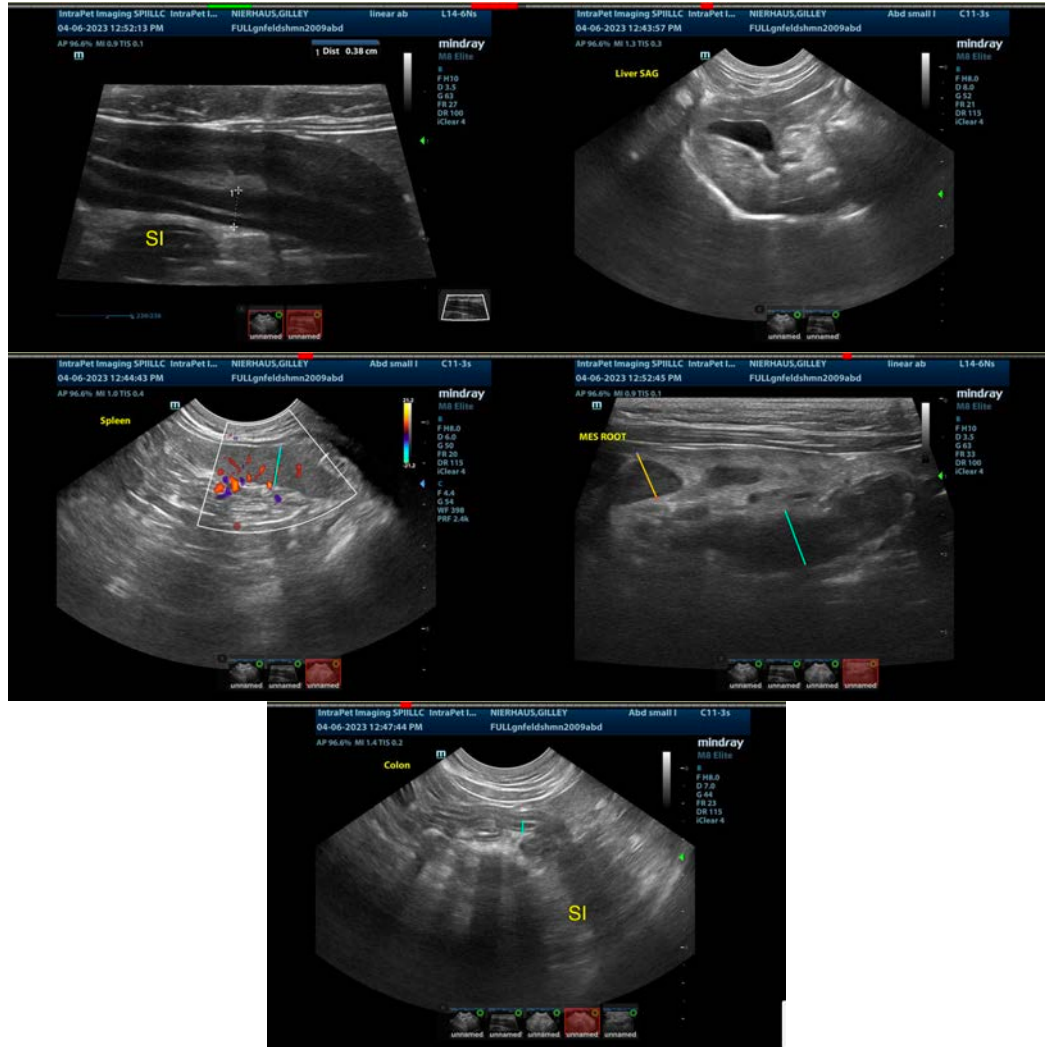
No focal lesions are visualized on today's scan to explain the weight loss noted. The most prominent lesions are the clusters of prominent mesenteric lymph nodes. Consider a fine needle aspirate of a mesenteric lymph node for cytologic evaluation. Additionally, the pancreas is slightly prominent but does not appear overtly inflamed. Correlate these findings with a quantitative fPLI level.

In some regions, the muscularis layer of the small intestine appears slightly prominent. This can be a normal finding in some older cats but can also be associated with inflammation. If primary gastrointestinal disease is suspected, you could consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to

obtain further information. Additionally, you could consider a novel protein/hydrolyzed protein prescription diet, probiotic therapy. If a cytologic diagnosis cannot be obtained from a lymph node aspirate and primary GI disease is suspected, you could consider obtaining GI and lymph node biopsies.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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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