

**DATE PRESENTING CLINICAL SIGNS**

4/13/23 Chronic diarrhea, 1 month duration. Weight loss.

**PATIENT** Current Medications: Metronidazole 80mg BID, Provable.  
Lab Results: See attached.

Cisco Auvil Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

**SPECIES** Imaging Performed By: Stephanie Warga RDCS, RVT.

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****BREED** *Urinary System*

DSH

**SEX**

Neutered Male

**AGE**

12/28/14

**WEIGHT**

17.4 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**HOSPITAL NAME**

Northwind AH

**REFERRING VET**

Dr. Miller

**INVOICE**

46679

*Urinary System*  
Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with a large amount of echogenic non-shadowing, both suspended and gravity dependent debris, which could be partially consistent with incidental suspended lipid in a cat, but likely combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (4.83 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (4.31 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia or mineral observed. A chronic infarct is noted.

*Adrenal Glands*

The right adrenal gland is normal in size (0.34 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.55 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

*Spleen*

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

*Liver*

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

### ***Gastrointestinal***

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. It is subjectively mildly overdistended with very hard stool.

### ***Pancreas***

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

A very scant amount of anechoic free fluid is noted, primarily around the urinary bladder and descending colon.

There is no apparent lymphadenopathy noted in these images.

## **PRIMARY FINDINGS**

- Large amount of urinary bladder debris
- **Mild gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- **Some concern subjectively for constipation** – This finding should be interpreted in combination with supporting history, clinical signs, and/or physical exam findings or radiographic findings.

## **SECONDARY FINDINGS**

- **Pancreatic age-related remodeling** – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.
- Chronic infarct in the left kidney

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

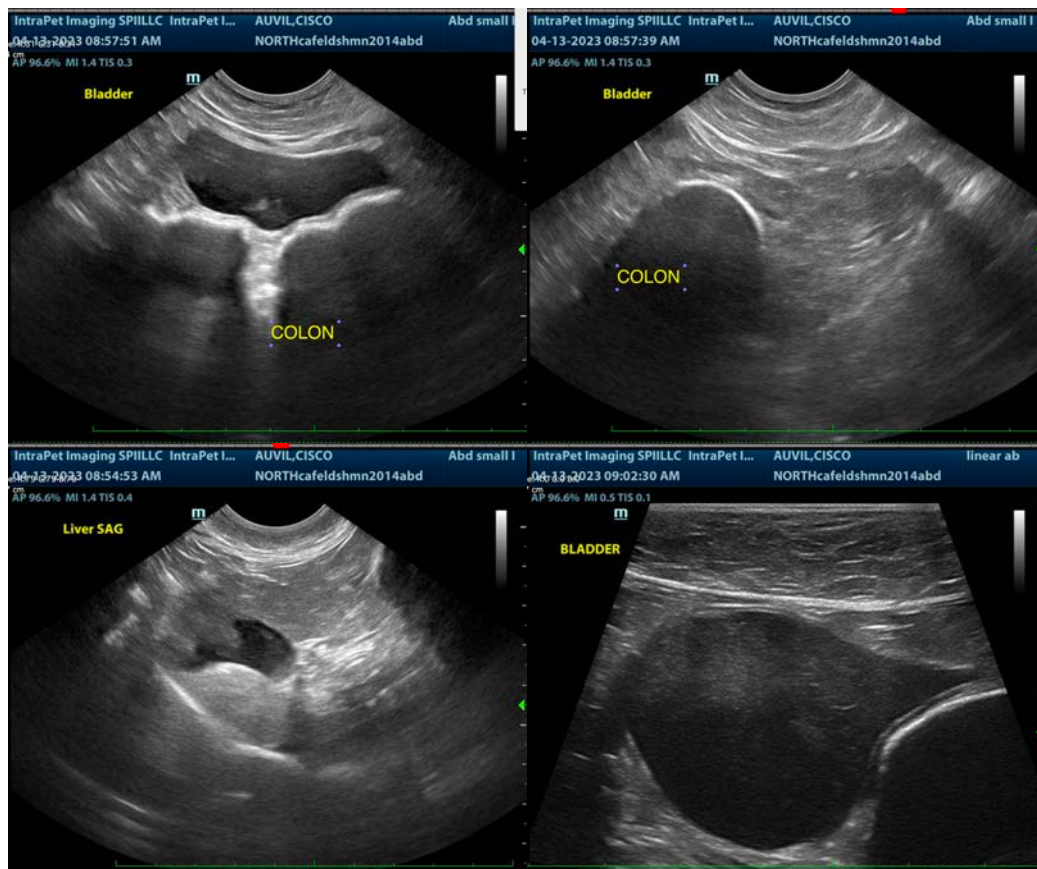
Given the appearance of this patient's colon, there is some concern for constipation. If the weight loss is believed clinically to be secondary to decreased appetite or decreased overall caloric intake, potentially constipation could be contributing to decreased appetite, and if the clinical history and/or physical exam or radiographic findings support constipation, medical management should be implemented. Having said that, given the reported diarrhea, which can be seen with constipation, but also could indicate other gastrointestinal maldigestion or malabsorption disorders, further evaluation of gastrointestinal health is recommended.

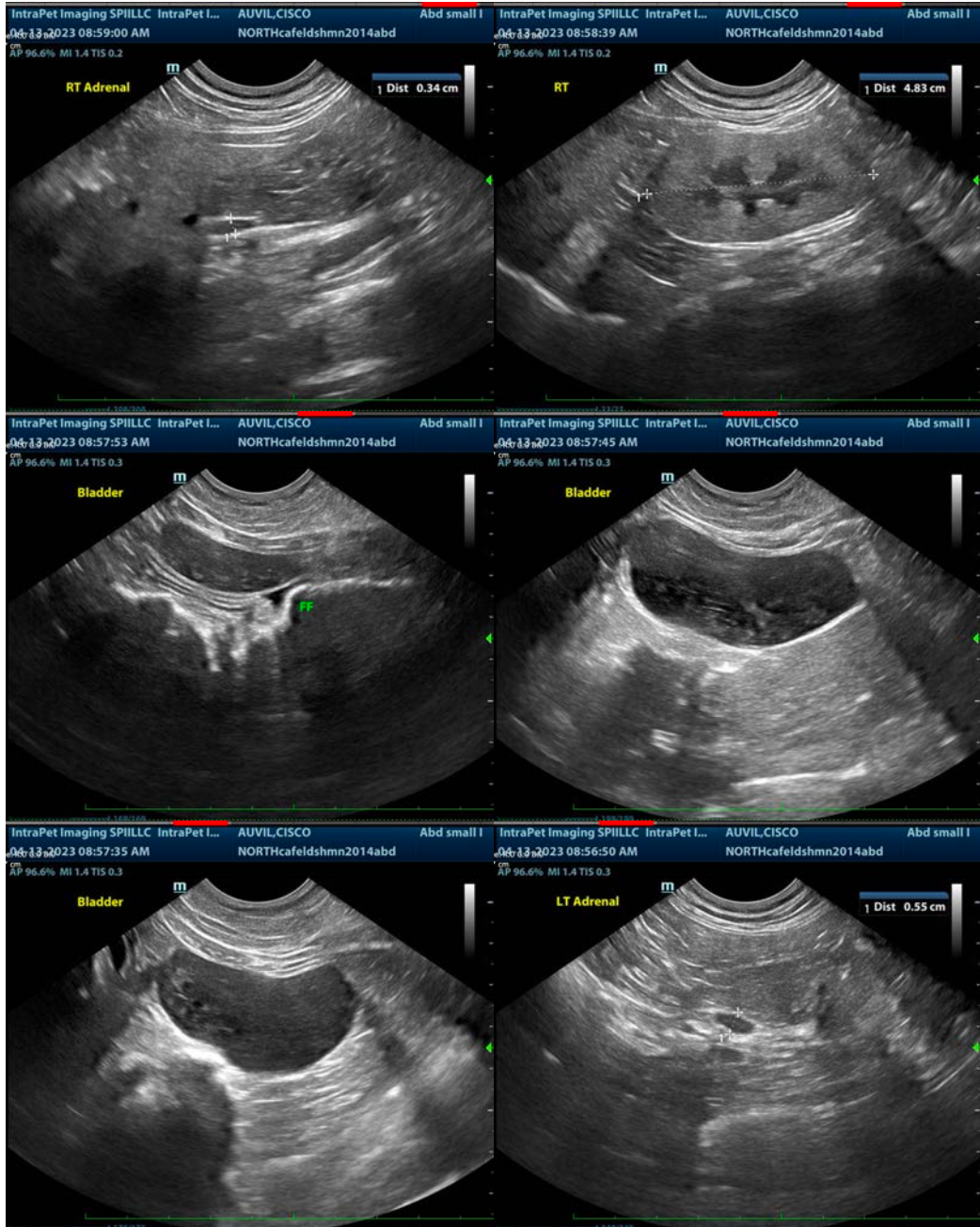
A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

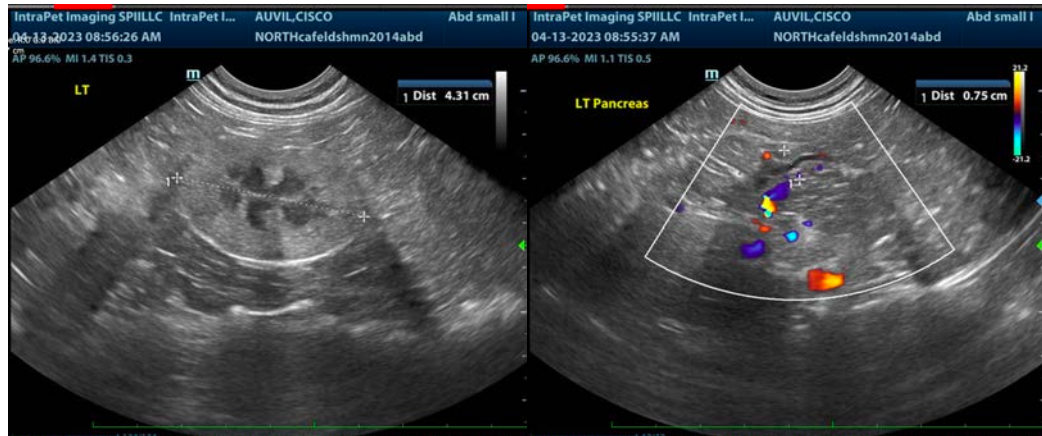
A fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease.

Additionally, if not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

In the meantime, empirical deworming with a 5-day course of Panacur is recommended, as is a probiotic such as Visbiome or Provable if not already in place. If tolerated, transition in diet could be considered, beginning with a colitis or fiber responsive diet, especially if constipation is believed to be contributing, or potentially a hydrolyzed protein diet if not.







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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