

**DATE PRESENTING CLINICAL SIGNS**

7/31/23 History: Weight loss, loose stool, pancreatitis, CKD.

PATIENT

Brody Grabill

Current Medications: None.
 Lab Results: See attached.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Declined.
 Stat Report: Not requested.
 Imaging Performed By: Andi Parkinson, BS, RDMS.

SPECIES

Feline

BREED

Persian

SEX

Neutered Male

AGE

5/19/11

WEIGHT

6.57 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**HOSPITAL NAME**Cat Hospital of
Towson**REFERRING VET**

Dr. Martin

INVOICE

23728

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with a moderate to large amount of echogenic non-shadowing debris, which could be partially consistent with incidental suspended lipid in a cat, 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.

Left kidney is normal is size (3.79 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 infarcts observed. A nonobstructive 0.16 cm nephrolith is noted.

Right kidney is normal is size (3.10 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.

Adrenal Glands

The adrenal glands are unable to be well visualized in these images.

Spleen

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

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 non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen of the small intestine is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Pancreatic duct dilation is noted. Enhanced hyperechoic ill-defined surrounding fat is noted.

Free Abdomen

There is no apparent lymphadenopathy. A trace amount of anechoic free fluid is noted in the cranial abdomen.

ULTRASONOGRAPHIC FINDINGS

- Suspected inflammatory bowel disease (IBD) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- Concurrent mild or emerging acute pancreatitis is suspected given the appearance of the pancreas, the trace amount of free fluid and the enhanced mesenteric fat in the cranial abdomen.
- Nonobstructive nephrolith in the left kidney
- A large amount of urinary bladder debris

INTERPRETATION OF The FINDINGS & FURTHER RECOMMENDATIONS

The appearance of this patient's pancreas combined with the reported PLI result, are both consistent with mild or emerging acute pancreatitis, and therefore, medical management, as is clinically indicated, i.e., antiemetics, gastroprotectants, appetite stimulants (if indicated), pain management (if indicated), etc., could be considered.

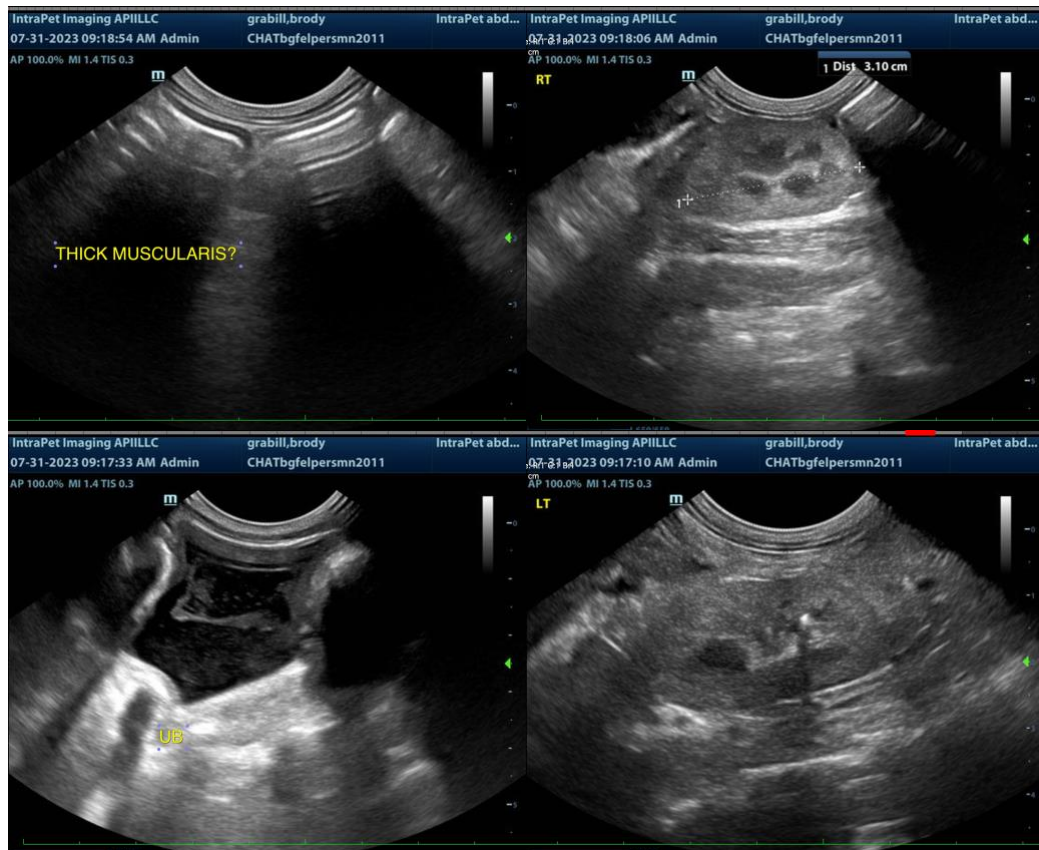
Having said that, however, concurrent infiltrative bowel disease is also suspected given the appearance of the bowel combined with the low/normal cobalamin level. This is likely contributing to the reported weight loss and diarrhea. Therefore, ideally, biopsies of the GI tract, being sure to include ileum, if possible, are recommended to definitively diagnose and therefore manage the infiltrative bowel disease.

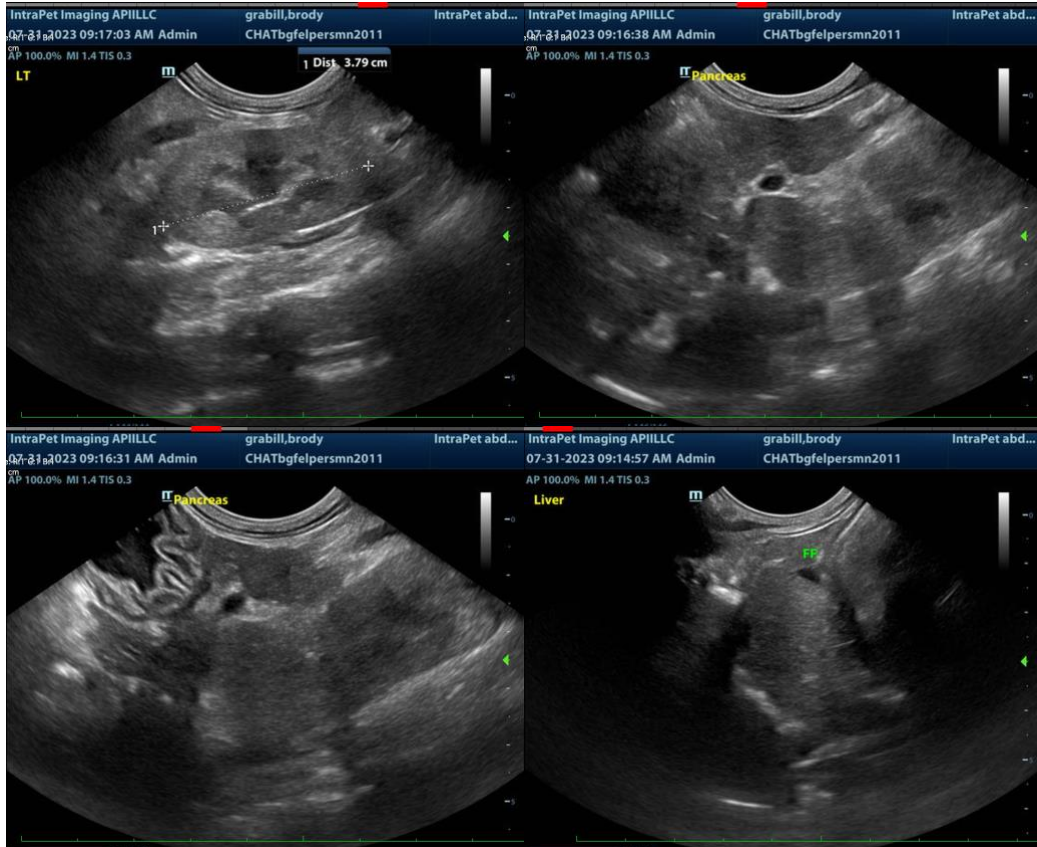
If biopsies cannot be obtained, empirical therapies could include a probiotic (if diarrhea is present, such as Visbiome or Provable), empirical deworming with a 5-day course of Panacur and, if tolerated, a transition in diet, based on trial-and-error response, beginning with a hydrolyzed protein diet. Some patients respond to one brand/version of a hydrolyzed protein diet better than another brand, so several trials may be required.

Additional considerations could include cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.).

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

**The detail of the bowel wall is difficult to fully visualize in these images but where the wall can be seen clearly, the muscularis appears to be mildly thick, as described above. The sonographer noted trying to image in multiple view and struggling due to the large amount of gas.





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.

Beth Johnson, DVM DACVIM
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