

**DATE PRESENTING CLINICAL SIGNS**

4/10/23

History: Patient has lost 1lb in 1 month. Has started to not eat well. Pt has history of CKD and diarrhea and has been on chronic medications for this. Also has a small heart murmur. Brief ultrasound reveals enlarged intestines and abnormal area of intestine or lymph node mid abdomen. Also concern for status of right kidney on brief us.

**PATIENT**

Red Lucci

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

2/18/06

**WEIGHT**

9.1 Pounds

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM**HOSPITAL NAME**

Everhart VH WellPet

**REFERRING VET**

Dr. Rubinstein

**INVOICE**

21934

Current Medications: Provable Forte cat/small dog- SID, Cerenia 16mg ½ EOD, Metronidazole 50mg- 100mg EOD, Amlodipine 5mg ¼ every third day, LRS (1000mL bag)- 200mL SQF EOD.

Lab Results: Last bloodwork performed on 11/1/22- BUN 60, Creat 4.3, PCV 35, rest WNL. Current bloodwork pending.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Andi Parkinson, BS, RDMS.

**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 occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly 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.

Kidneys are bilaterally normal in size, with irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no mineral observed. The left kidney measures 4.26 cm. The right kidney measures 3.95 cm. Pyelectasia is present bilaterally, more obvious on the left, where it measures 0.66 cm in the transverse view.

**Adrenal Glands**

The area of the adrenal glands is examined without evident adrenal gland pathology.

**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 empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

Diffusely, 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. In the mid abdomen, there is an approximately 5.0 cm long area of jejunum that is thicker than the remainder of the bowel and does exhibit a hypoechoic heterogenous wall with loss of layering. The lumen of the small intestine is empty with 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***

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

### ***Free Abdomen***

There is no evidence of peritoneal effusion. Mild lymphadenopathy is noted adjacent to the bowel mass.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- A jejunal bowel mass is concerning for infiltrative neoplasia, such as lymphoma vs other. This focal change is on top of diffuse gastrointestinal lymphoma (suspect) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. Given the concurrent pathology noted, infiltrative neoplasia is considered more likely, but benign IBD cannot be ruled out without tissue sampling.
- Lymphadenopathy could be a reactive lymphadenopathy; however, infiltrative neoplasia cannot be ruled out without tissue sampling.
- Chronic active pancreatitis
- Chronic kidney disease with pyelectasia – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc. Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

### **Secondary Findings**

- Urinary bladder debris

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

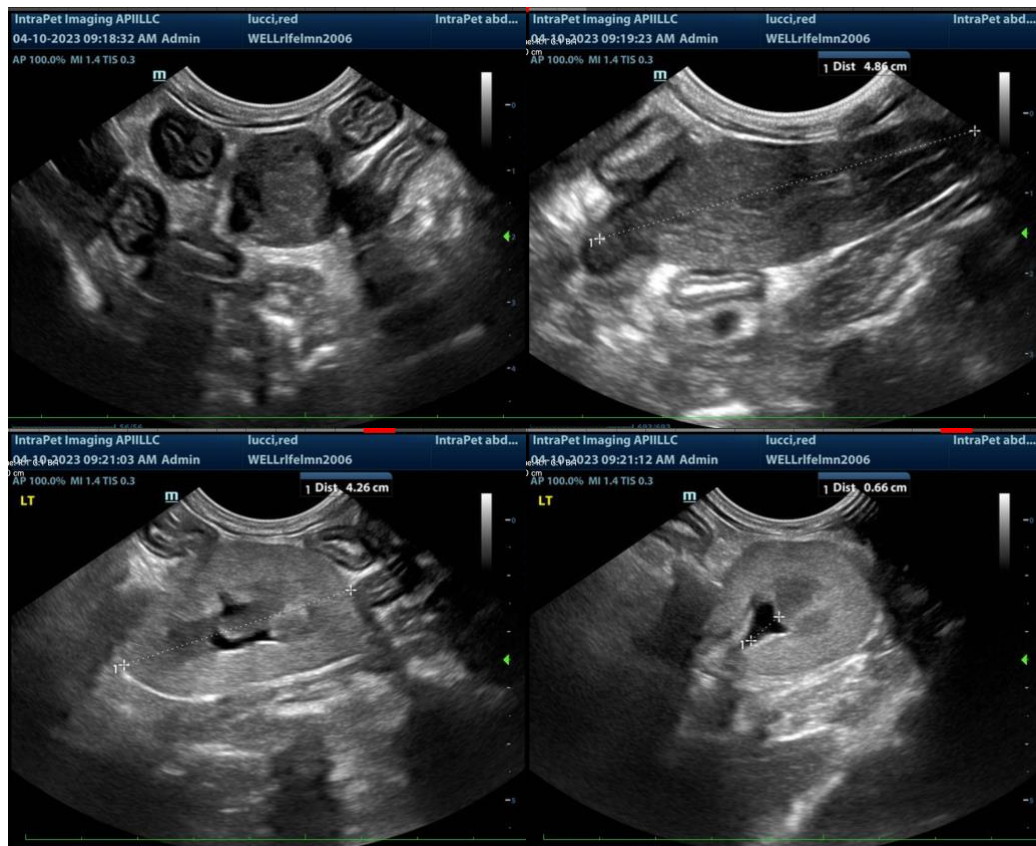
A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

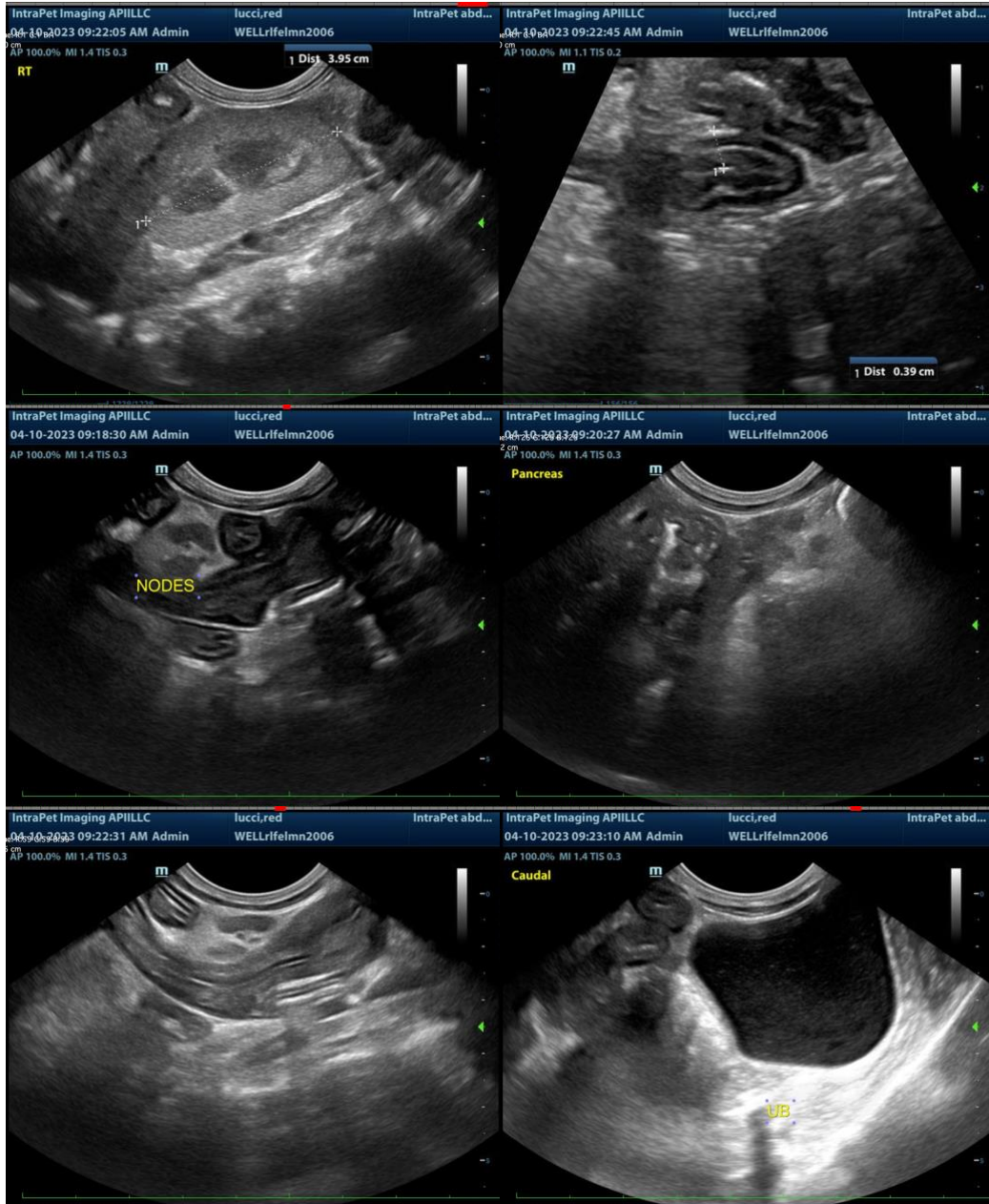
Tissue sampling is recommended to look for further evidence of infiltrative round cell disease such as lymphoma. A fine needle aspirate of the bowel mass could be considered if patient's coagulation status is appropriate.

If a cytologic diagnosis is not obtained, 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 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.

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