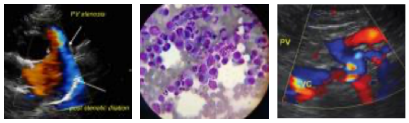
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

7.20.2023

PATIENT

Bruno Garcia

SPECIES

Feline

BREED

Persian

SEX

Neutered Male

AGE

6/11/2013

WEIGHT

8.7 lbs

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Fullerton AH

REFERRING VET

Dr. Unger

INVOICE

13770

PRESENTING CLINICAL SIGNS

Pet presented on 6/23 for Loose stool, eating is a little off, not eating consistently. Drinking normal. Wobbly when he's sitting and bad breath. On exam a 1.2 weight loss was noted. He had decreased muscle mass and walks low in the hind end. Bloodwork unremarkable except a mild anemia. Pet was treated and seems to be improving in demeanor and appetite, HCT stable and has gained a little weight back but diarrhea persists despite probiotics, metronidazole and I/D diet which owner is not feeding exclusively.

Current Medications: Proviable Kit - Give 1 capsule by mouth once a day until finished and give 1 ml of paste every 8 hours as needed for diarrhea. Started 7/10. Gabapentin Susp. 250/5ml #10 - Give 0.5 ml by mouth every 12 hours for pain since 6/23.
Lab Results: HCT ranges from 26.6% to 28%.
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.

Left kidney is overall normal in size (4.81 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. Multiple septated cysts of varying sizes are noted in the cortices bilaterally. Nonobstructive nephroliths noted bilaterally. There is no evidence of pyelectasia or infarcts observed.

Right kidney is overall normal in size (4.22 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. Multiple septated cysts of varying sizes are noted in the cortices bilaterally. Nonobstructive nephroliths noted bilaterally. There is no evidence of pyelectasia or infarcts observed.

Adrenal Glands

The adrenal glands are not able to be well-visualized in these images.

Spleen

Spleen is subjectively large in size with a mildly swollen but smooth capsule. Parenchyma is normal and homogenous in echogenicity and echotexture. 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. Mutifocal nodules/masses of mixed echogenicity (primarily hypoechoic in echogenicity, but

contain multiple septated cysts in varying sizes). 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. N

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 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

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

There is a trace amount of anechoic free fluid throughout the abdomen. Lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail. Cranial abdominal hepatic vs gastric vs pancreatic or duodenal lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Gastrointestinal lymphoma (suspect) pattern with nonobstructive nephroliths noted bilaterally and cranial reactive lymph nodes – 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. The lymphadenopathy is most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture. Infiltrative neoplastic disease cannot be ruled out but is considered less likely.

- Hypersplenism – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis (leave amyloidosis out if canine) as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.

- Feline biliary cystadenomas – In a senior cat, these liver lesions are most consistent with multiple benign biliary cystadenomas. Malignancy cannot be ruled out but is considered less likely give lack of clinical signs and/or laboratory changes.

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.

- Age-related kidney changes with bilateral cortical cysts and nonobstructive nephroliths, as well as a large amount of urinary bladder debris.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

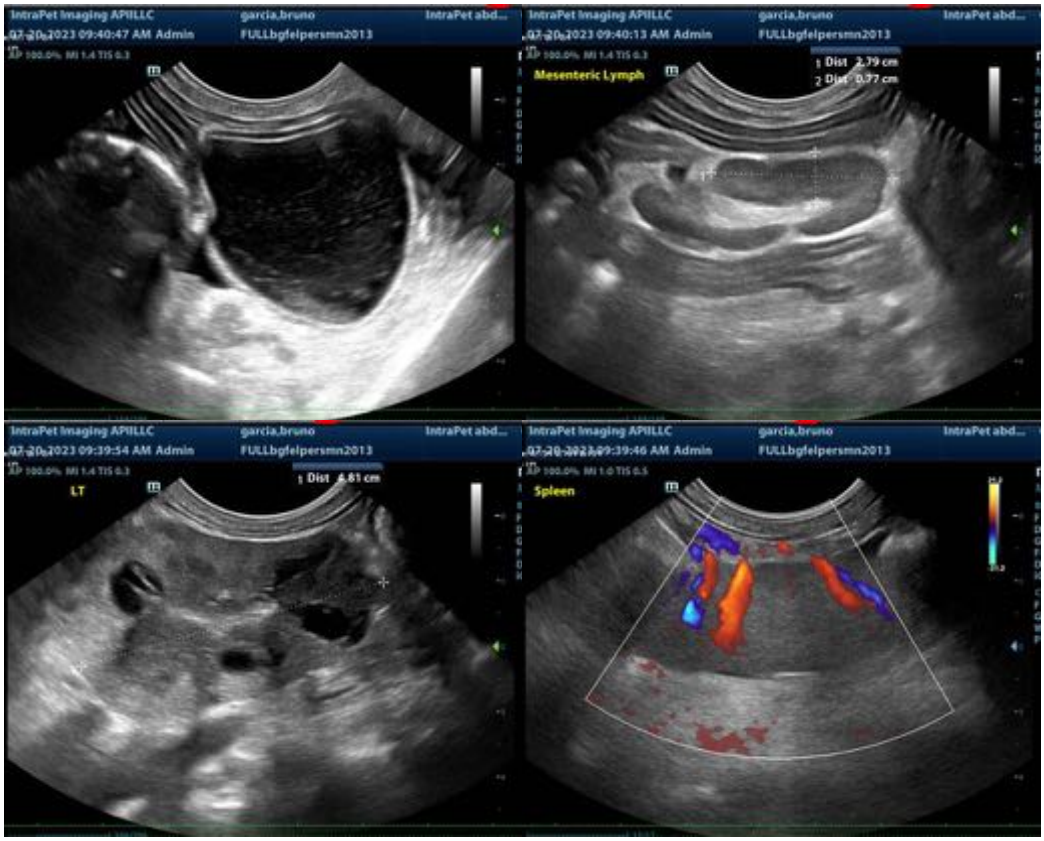
- A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

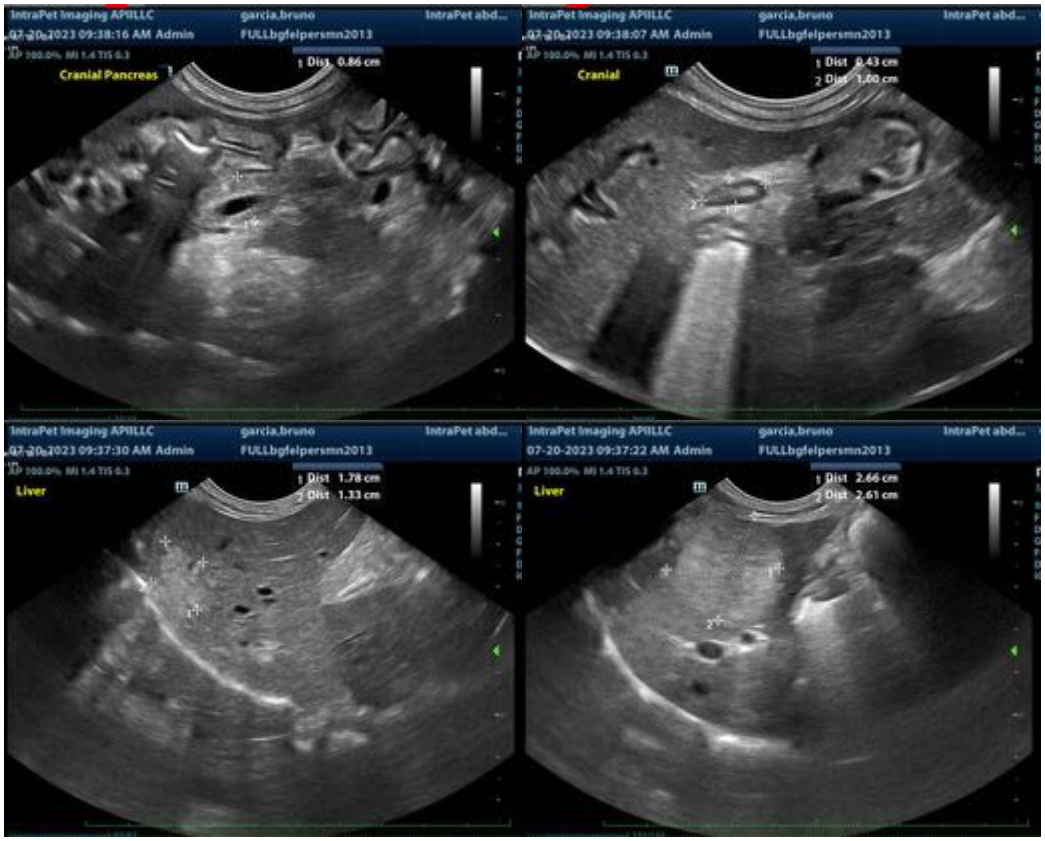
- Tissue sampling is recommended to look for further evidence of infiltrative round cell disease such as lymphoma. Fine needle aspirates of enlarged lymph nodes as well as the spleen could be considered if patient's coagulation status is appropriate.

- 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 Proviable), 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.).

- 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.


IntraPet Imaging APIILLC
garcia,bruno
IntraPet abd...
FULLbgfelpersmn2013
Mesenteric Lymph
Dist 2.79 cm
Dist 0.77 cm
LT
Dist 6.61 cm
Spleen



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
info@SonoPath.com