IMAGING PERFORMED BY

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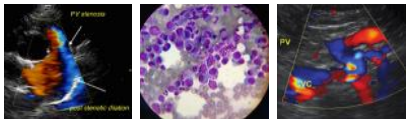

SonoPath
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DATE
7/11/22

PATIENT
Roger Kimmel

SPECIES
Feline

BREED
DSH

SEX
Neutered Male

AGE
11/14/2010

WEIGHT
9.5 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Banfield White Marsh

REFERRING VET
Dr. Esdaile

INVOICE
16574

PRESENTING CLINICAL SIGNS

History: On June 8 Roger stopped eating and was meowing like he was in pain. O states that he took Roger to the Animal Emergency Hospital and several diagnostics were performed. O states that Roger was found to be severely anemic, with indications of cardiac murmur and abdominal effusion. Rodger's condition upon release was critical and he was at risk for continued decline, death, worsening condition. Discussed with O concerns at the time were r/o cancer vs FIP vs bone marrow disease vs other. Discussed with O with O severity of Roger's anemia based on AEH clinical summary and necessity for blood transfusion, which will require referral to an ER. Abdominal US has been recommended several times and now O is ready to schedule

Current Medications: Gabapentin Suspension(100 mg/ml) 0.25 mls BID
Cerenia as needed.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Declined.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

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 normal is size (3.81 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.

Right kidney is normal is size (3.98 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

Left adrenal gland is normal in size (0.2 cm thick), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.38 cm thick), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous 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. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion. Subjective distention of venous vasculature was noted.
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 with no evidence of obstruction, foreign material or infiltrative disease. 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 empty with no evidence of obstruction or foreign material. *See Other category.

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.

Other

The mesenteric 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.

In the left mid to caudal abdomen, there are hypoechoic structures that appear to be aggressive lymphadenopathy, however, aggressive lymphadenopathy closely adhered to bowel, however, bowel masses cannot be ruled out.

Free Abdomen

There is a scant amount of free fluid noted around the lymphadenopathy/bowel masses, as well as diffusely hyperechoic enhanced fat throughout the abdomen. No pericardial effusion is noted in these images.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- **Scalloped spleen –** can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.

- **Aggressive mesenteric lymphadenopathy with possible bowel mass versus enlarged hypoechoic irregular lymph nodes present adjacent to the bowel –** most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.

- **Chronic active pancreatitis**

- **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.

Secondary Findings

- **Urinary bladder debris**

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the combination of findings in these images, infiltrative neoplasia, such as round cell neoplasia is considered the top differential.

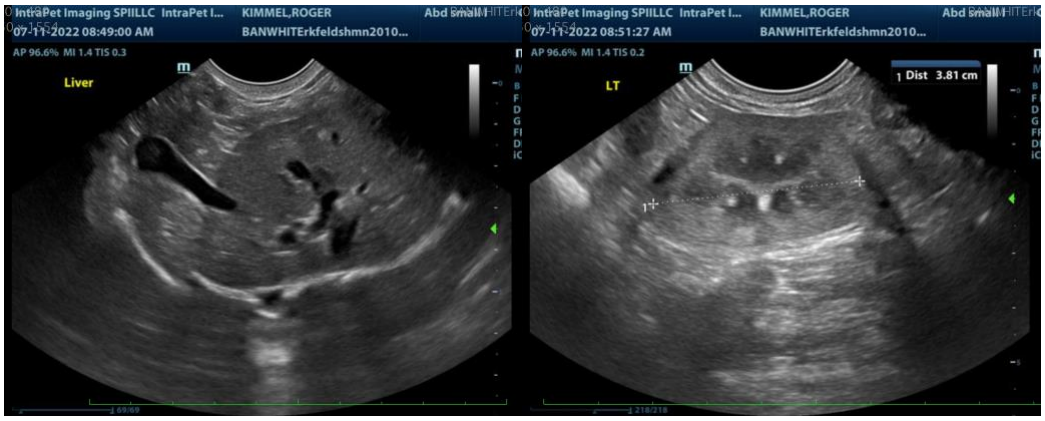
Recommendations include:

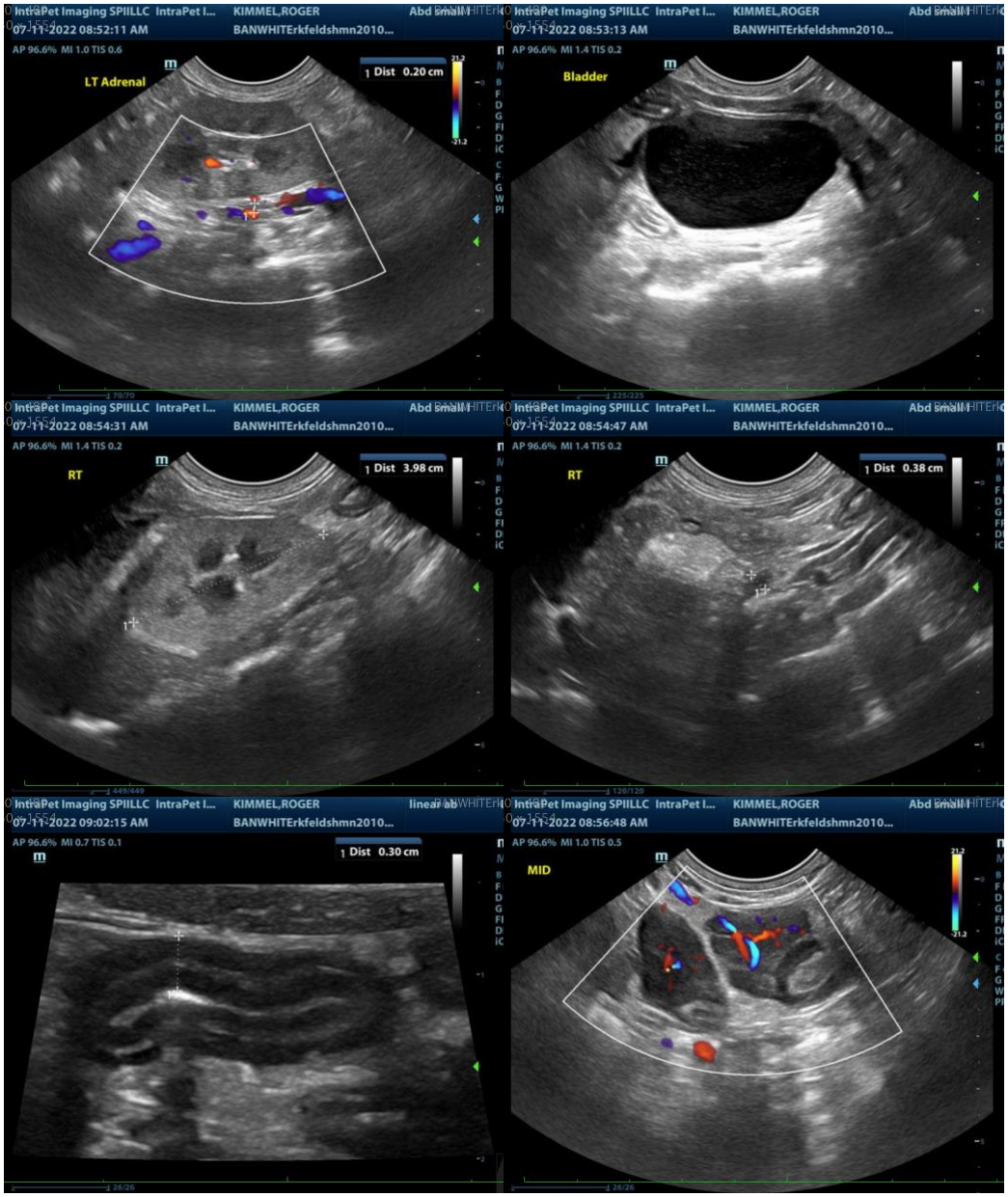
- A fine needle aspirate of the spleen, as well as mesenteric lymph nodes/bowel mass, if patients coagulation status is appropriate and recommendations include premedication with diphenhydramine before the aspirate.

- 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.

- Given the subjectively distended veins and new heart murmur, an echocardiogram could also be considered.

- 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, followed by, if a diagnosis is not obtained via cytology, ultimately, ideally, biopsies of the GI tract, being sure to include ileum, if possible, could be considered to definitively diagnose and therefore, manage the suspected infiltrative bowel disease.

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Bladder
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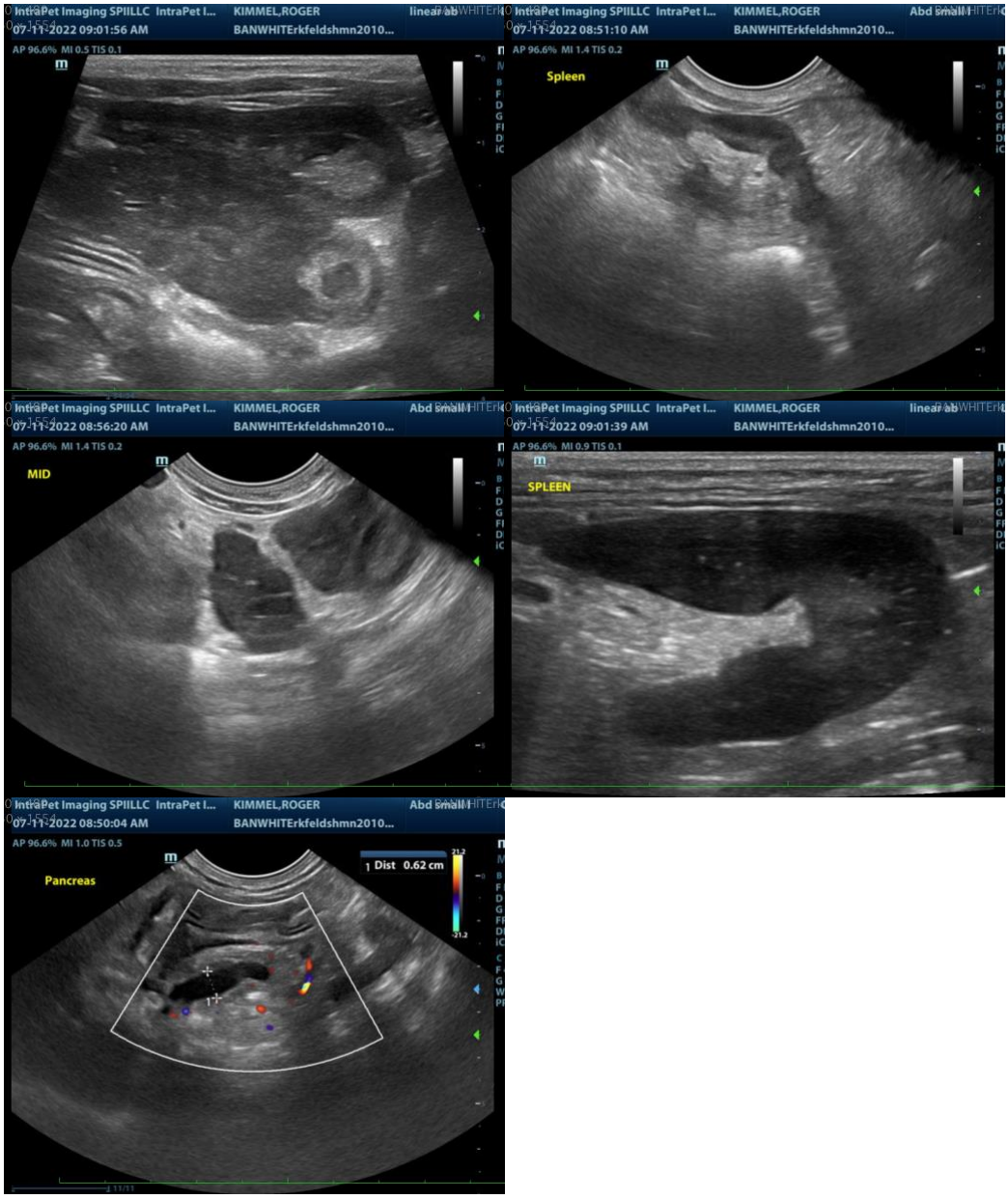
MID



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
Beth.Johnson@SonoPath.com