



**PATIENT**

Leonard Chaplin

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

16 Years

**WEIGHT**

8 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Andover AH

**REFERRING VET**

Dr. Bihlear

**INVOICE**

21209

**DATE**

2/20/23

**PRESENTING CLINICAL SIGNS**

History: Presented 2/16/23 ADR, not eating, lethargic. Historical grade II/VI apical heart murmur, CKD, thyroid nodule (L side). Current meds: Amlodipine 2.5mg 1/4 tab q24h; Benazepril 5mg 1/2 tab q24h; Cerenia 16mg 1/2 tab q24h; Mirtaz transdermal q24h; B12 inj. sq weekly

Abnormal PE/Chem/CBC/UA Results: TP 3.5 (L), Glob 1.5 (L), Bun 53 (H), SDMA 22.6 (H), Ca 7.5 (L), Na 144 L, Chol 58 (L), Neut 12385, Lymph 906, Mono 906, U/A- USG 1.020, 3+ bld, RBC 21-50, Trace protein

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size 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. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 3.61 cm. The right kidney measures 3.33 cm.

**Adrenal Glands**

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

Right adrenal gland is normal in size (0.41 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. 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. The cystic and common bile duct are tortuous but non-pathologically dilated, which can be a normal anatomic variant in a cat. However, chronic cholangitis cannot be ruled out and this finding should be interpreted in combination with supporting clinical signs and/or laboratory changes.

**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.



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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 a small bowel loop with loss of mural detail/loss of layering beginning. The lumen of the small intestine is empty with no evidence of obstruction or foreign material.

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

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***Pancreas***

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The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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***Free Abdomen***

There is a scant amount of anechoic free fluid noted in these images, as well as diffusely, subtly hyperechoic/enhanced mesenteric fat. Additionally, 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.

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**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

8 Pounds

**Primary Findings**

- 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.
- A diffusely micronodular spleen. This can be a benign aging nodular hyperplasia change, however, infiltrative neoplasia, including infiltrative round cell neoplasia can mimic the benign changes and cannot be ruled out without tissue sampling.
- Aggressive mesenteric lymph nodes – most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.
- Diffuse mesenteric fat and a scant amount of anechoic free fluid, likely secondary to the suspected infiltrative bowel disease

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**Secondary Findings**

- Age-related kidney changes

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

If not recently evaluated, 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.

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Additionally, given the reported thyroid nodule, a T4 and free T4 are recommended if not recently evaluated.

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A fine needle aspirates of the spleen and mesenteric lymph nodes could be considered if patients coagulation status is appropriate.

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If a diagnosis of infiltrative round cell neoplasia is not diagnosed cytologically, biopsies of the GI tract, being sure to include ileum if possible may be necessary to definitively diagnose and therefore manage the suspected infiltrative bowel disease.

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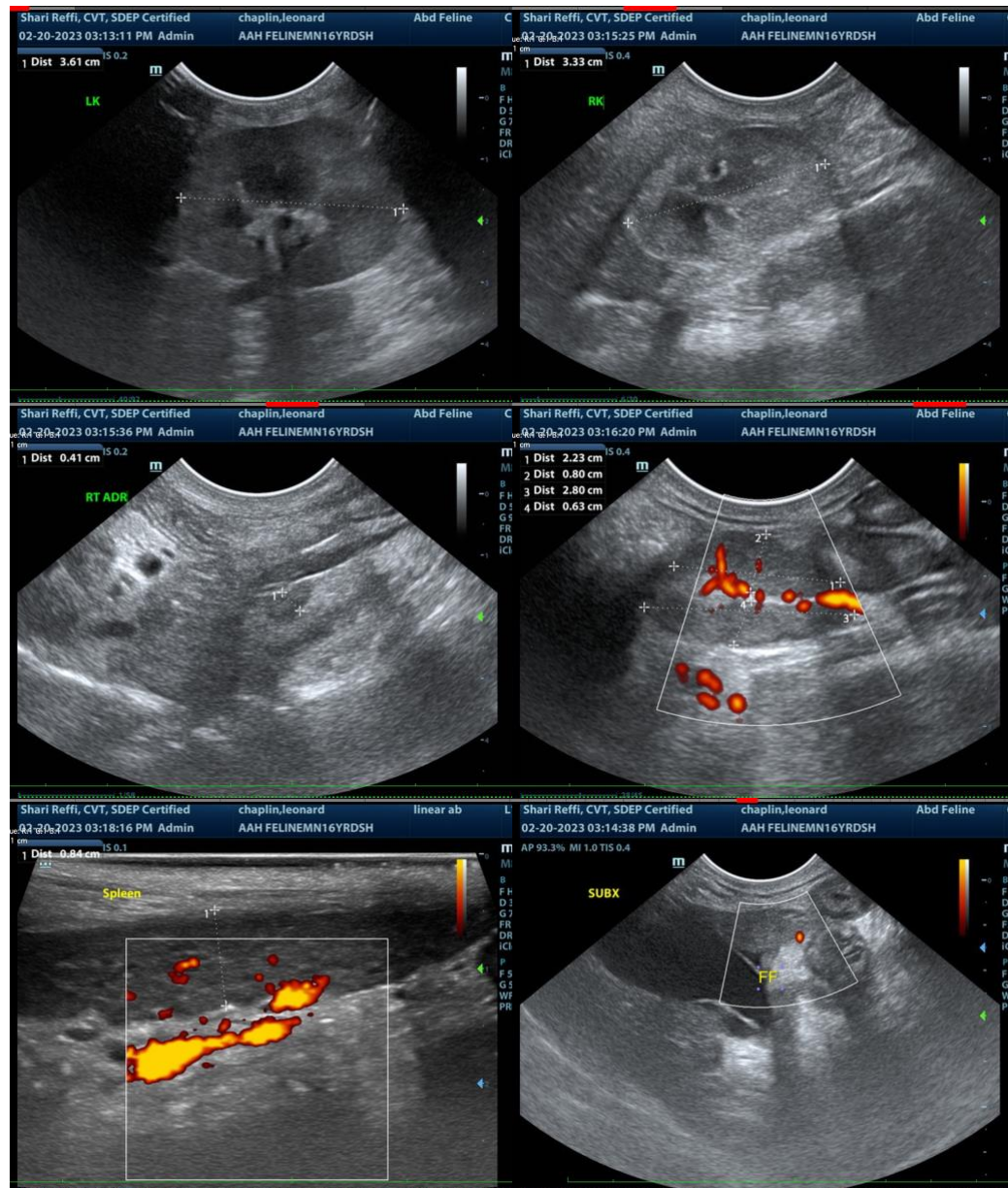
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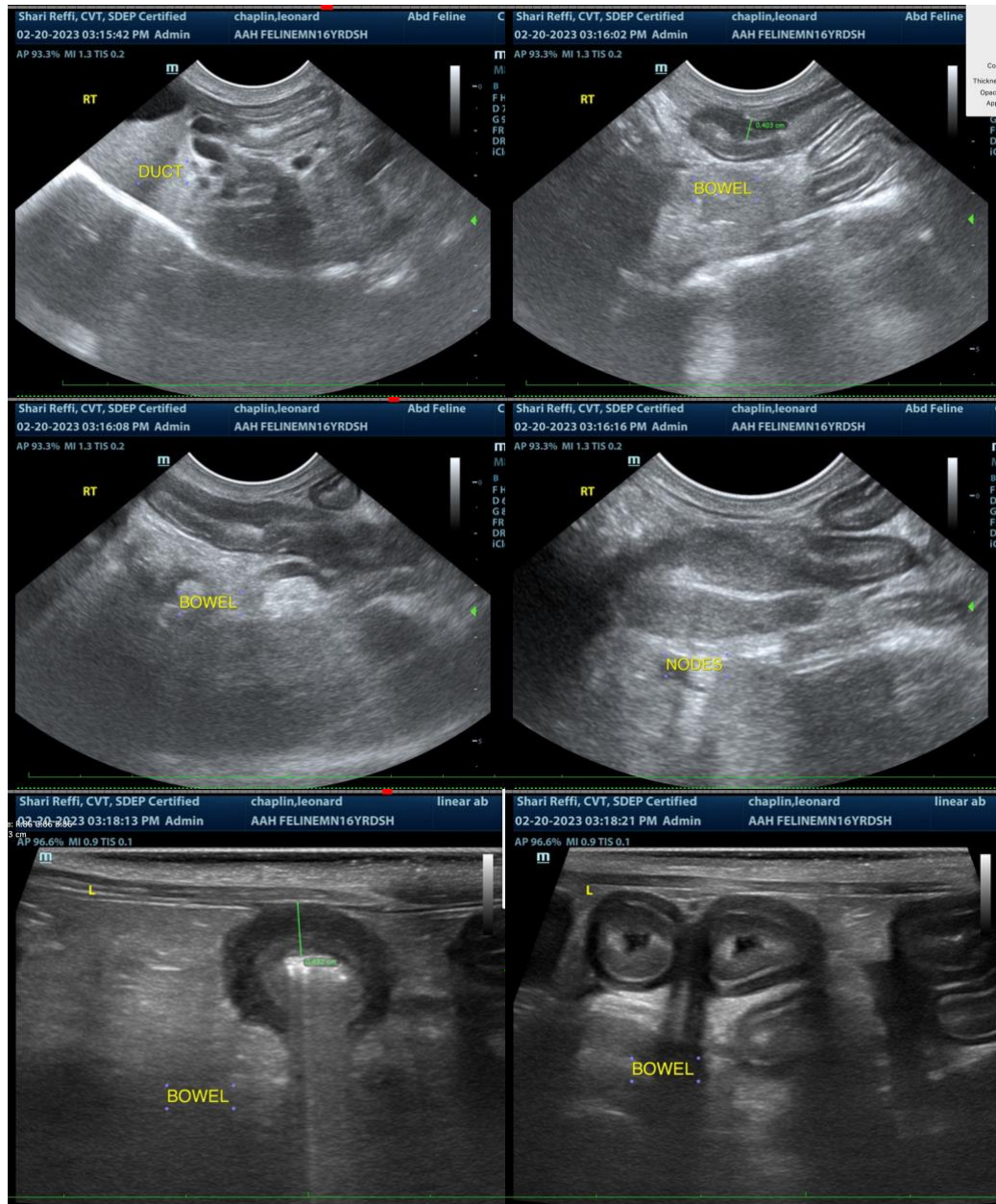
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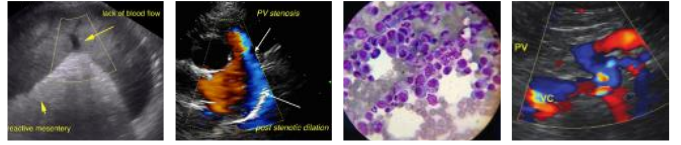
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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Beth.Johnson@SonoPath.com

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