

**PATIENT**

Cyrus Alexander

PRESENTING CLINICAL SIGNS

New weight loss Chronic renal disease New anemia
 Abnormal PE/Chem/CBC/UA Results: Azotemia Anemia Hyperglycemia but normal Fructosamine

SPECIES

Feline

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.

BREED

DSH

SEX

Neutered Male

AGE

11 Years

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 mineral or infarcts observed. The left kidney measures 3.65 cm. The right kidney measures 3.56 cm. Pyelectasia noted at 0.17 cm in the left kidney and 0.16 cm in the right kidney (transverse view).

Adrenal Glands**WEIGHT**

10.82 Pounds

The right adrenal gland is normal in size (0.41 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.43 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BYBeth Johnson, DVM
DACVIM**Spleen**

Spleen is enlarged in size with normal shape and a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal.

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Amy Mayhew, LVT

Liver**HOSPITAL NAME**

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The 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.

REFERRING VET

Dr. Totin

The 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**INVOICE**

46818

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

DATE

4/20/23

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 is empty with no evidence of obstruction or foreign material.

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The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

SPECIES

Pancreas

Feline

Pancreas is prominent in size with swollen irregular contour. Parenchyma is heterogenous characterized by hyperechoic tissue remodeling intermixed with ill-defined hypoechoic nodules. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation. In the caudal left limb, there is a 1.5 cm x 2.2 cm irregular hypo- to anechoic structure.

BREED

DSH

Free Abdomen

SEX

Neutered Male

There is no evidence of free peritoneal effusion noted in these images.

The mesenteric 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.

AGE

11 Years

- **Micronodular splenic pattern** – This can be seen with benign aging nodular hyperplasia. However, given the large size of the spleen in this patient combined with the marked degree of change, infiltrative neoplasia including early hemangiosarcoma as well as more suspected round cell neoplasia are considered differentials and cannot be ruled out.

WEIGHT

10.82 Pounds

- **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.

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- **Reactive mesenteric lymph nodes** – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

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- **Pancreatic nodular hyperplasia with a hypo- to anechoic structure in the left caudal limb** that may represent a marked degree of nodular hyperplasia or a benign cystic lesion. However, infiltrative neoplasia cannot be ruled out. Additionally, low-grade smoldering pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

HOSPITAL NAME

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SECONDARY FINDINGS

- Urinary bladder debris
- **Age related kidney changes with mild bilateral pyelectasia** – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

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Dr. Totin

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Further diagnostic recommendations to investigate this patient's weight loss, anemia, etc. include fine needle aspirates of the spleen +/- the pancreas if patient's coagulation status is appropriate. Pre-medication with diphenhydramine is recommended.

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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.

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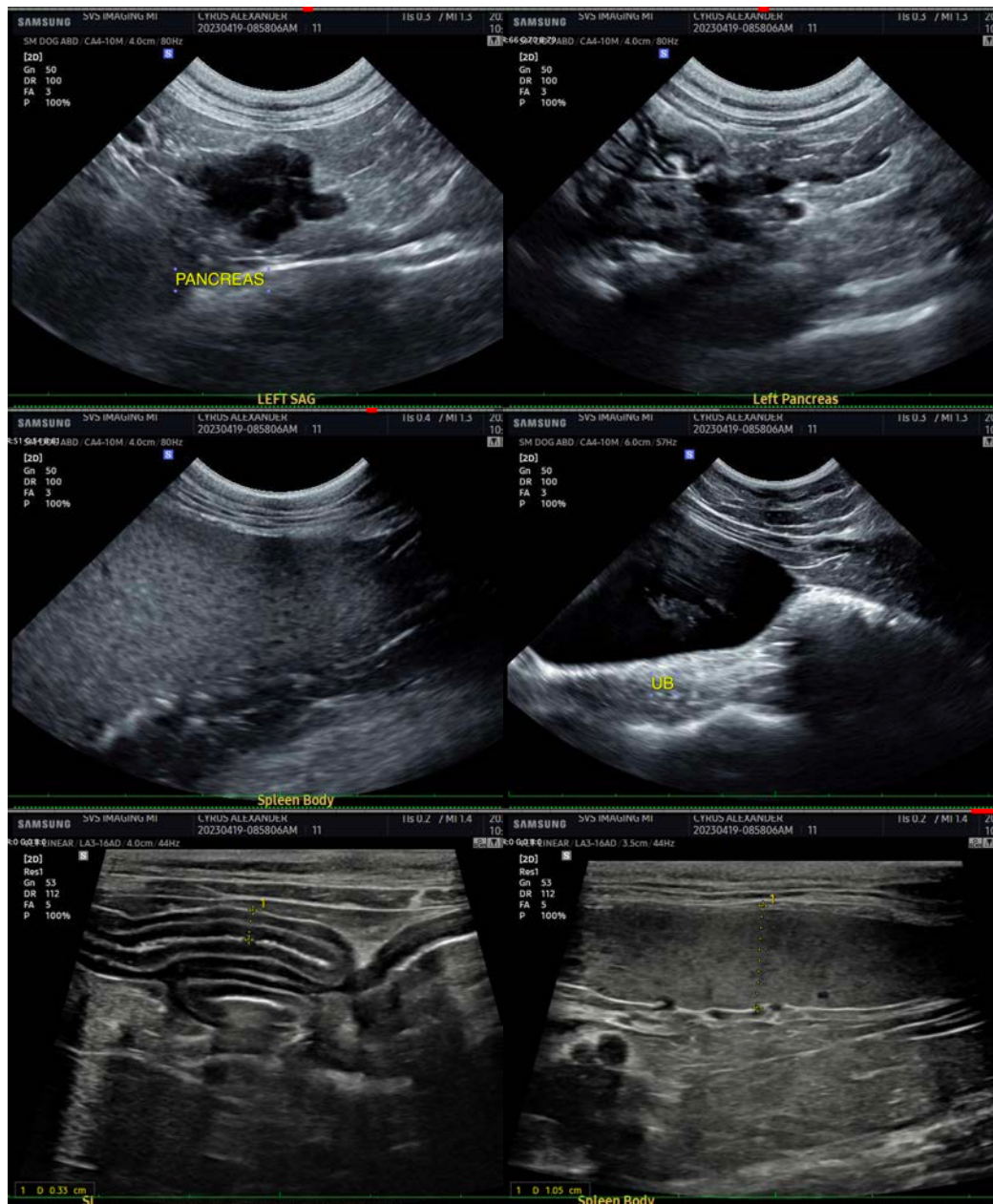
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Pending results of above, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

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 diet change, empirical deworming with a 5 day course of Panacur, cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.). Other supportive therapeutic considerations could include fiber supplementation, especially with large bowel diarrhea and/or a probiotic.



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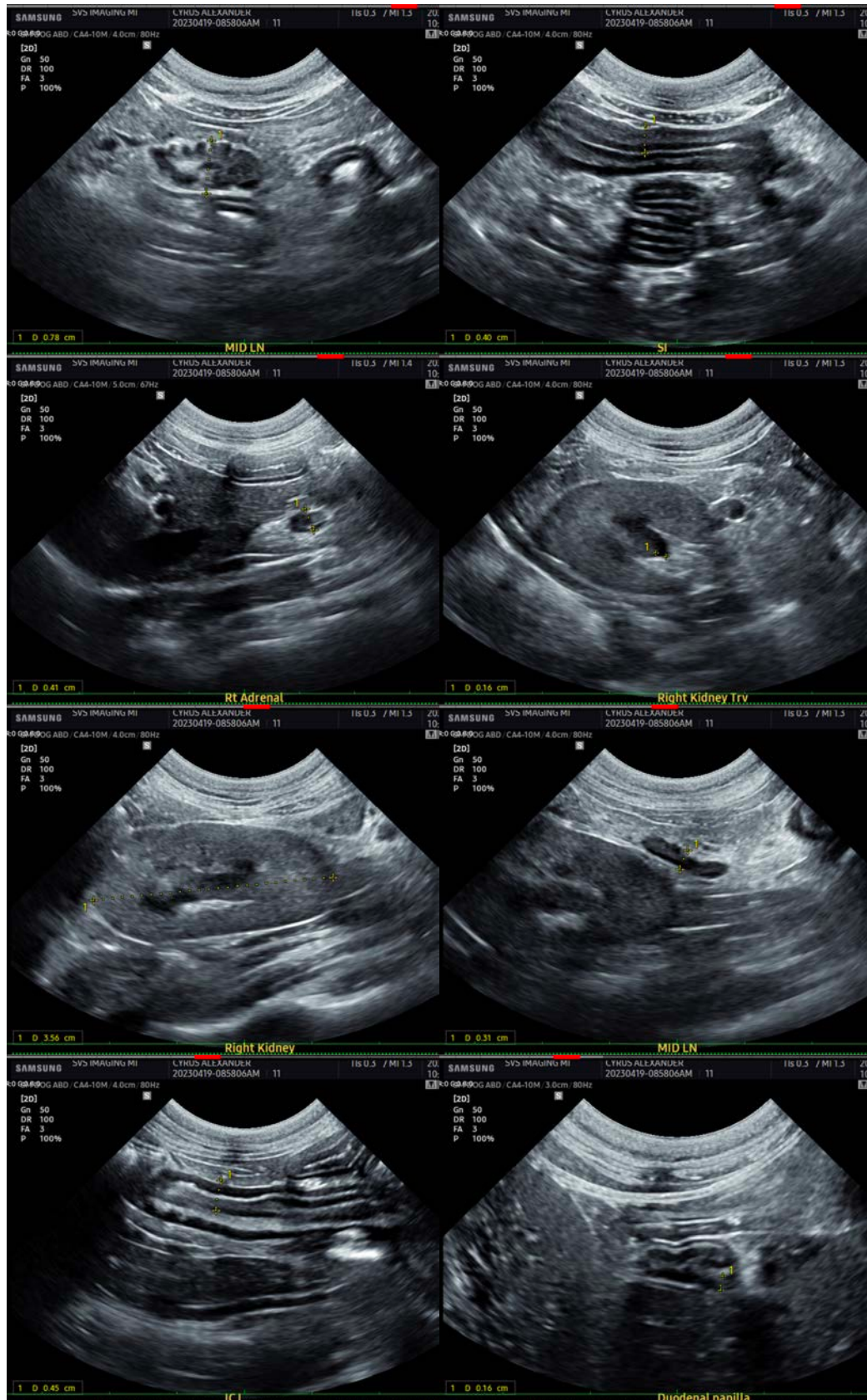
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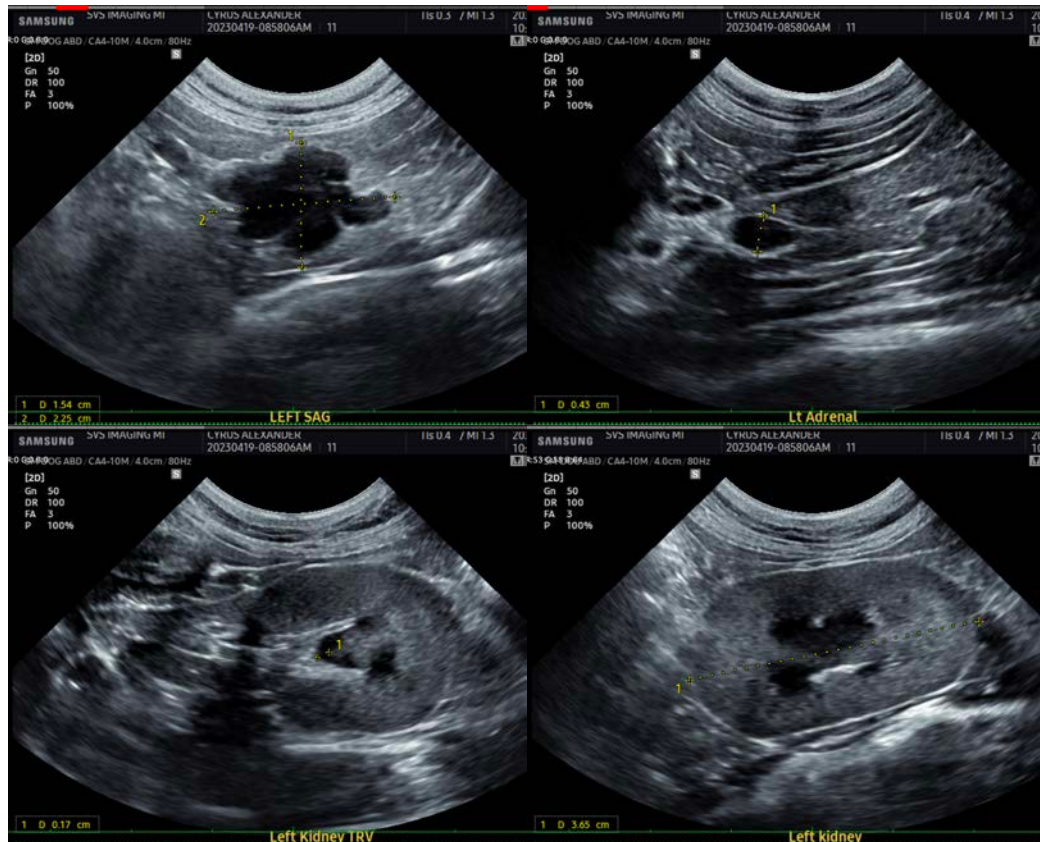
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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