



PATIENT

Sterling Nanau

SPECIES

Feline

BREED

DSG

SEX

Neutered Male

AGE

5 Years

WEIGHT

11.31

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Lucas Budden

HOSPITAL NAME

Frontier VH

REFERRING VET

Dr. Lucas Budden

INVOICE

21505

DATE

3/6/23

PRESENTING CLINICAL SIGNS

History: Seen 3/3/2023 for vomiting, diarrhea, hyporexia since 3/1/2023. Has improved with supportive care. Abdominal x-rays showed enlarged spleen and loss of detail in the cranial abdomen. Ultrasound to further assess spleen and cause of GI signs.

Abnormal PE/Chem/CBC/UA Results: Senior panel 3/3/2023 Platelet count low 109, clumping present. Estimate adequate Lymphopenia 1188 rule out stress Rest of CBC CHEM WNL T4 normal 2.3 FIV positive FeLV negative USG 1.025, 1+ proteinuria unknown significance. Rest of urine sediment nsf 3/4/2023 FeLV/FIV - neg/positive abdominal rads - No obvious intestinal obstruction, loss of visceral detail in the cranial abdomen, mineralized material within the gallbladder very small amount, suspect enlarged spleen

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 a large amount of echogenic non-shadowing debris, which could be partially incidental suspended lipid in a cat, likely 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 large in size with increased cortical echogenicity. Normal smooth peripheral margination and shape are maintained. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present bilaterally. The left kidney measures 4.63 cm. The right kidney measures 4.78 cm.

Adrenal Glands

Left adrenal gland is normal in size (0.34 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.36 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is enlarged 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. The spleen measures 1.15 cm thick.

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 mildly hyperechoic in appearance, which may be adhered mineral/sand debris given the reported radiograph findings. This is likely an incidental finding



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and should be interpreted in combination with clinical signs and/or laboratory changes that suggest cholangitis. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

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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 intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

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

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.

Free Abdomen

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There is no evidence of peritoneal effusion.

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.

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ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Feline renomegaly with bilateral medullary rim sign – These renal changes can be seen with glomerular or interstitial nephritis, FIP, amyloidosis, acute tubular necrosis or infiltrative neoplasia such as lymphoma. Normal variant due to fat deposition cannot be ruled out but is less common in an enlarged kidney. *Regarding the medullary rim sign, this finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.
- Nodular splenomegaly, which is a finding that can be associated with congestion, and/or benign conditions, such as extramedullary hematopoiesis, nodular hyperplasia, amyloidosis, etc., but is slightly more concerning for an aggressive infectious disease process, or even infiltrative neoplasia such as round cell neoplasia.

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

Secondary Findings

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- A large amount of urinary bladder debris



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

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Fine needle aspirates of the spleen +/- kidneys are recommended if patients coagulation status is appropriate. Premedication with diphenhydramine should be considered in case of mast cell tumor.

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A normal appearance to the gastrointestinal tract does not rule out concurrent infiltrative bowel disease, therefore, pending above results, additional work up of the gastrointestinal tract may be warranted, beginning with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory, for further evaluation of GI and pancreatic function.

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In the meantime, supportive/symptomatic medical management of the gastrointestinal signs is recommended, including antiemetics, gastroprotectants, empirical deworming with a 5-day course of Panacur, a probiotic such as Visbiome or Provable, and potentially, a transition in diet (if tolerated), beginning with a hydrolyzed protein diet (many patients respond better to one brand of hydrolyzed protein diet vs another, so sometimes several trials are necessary).

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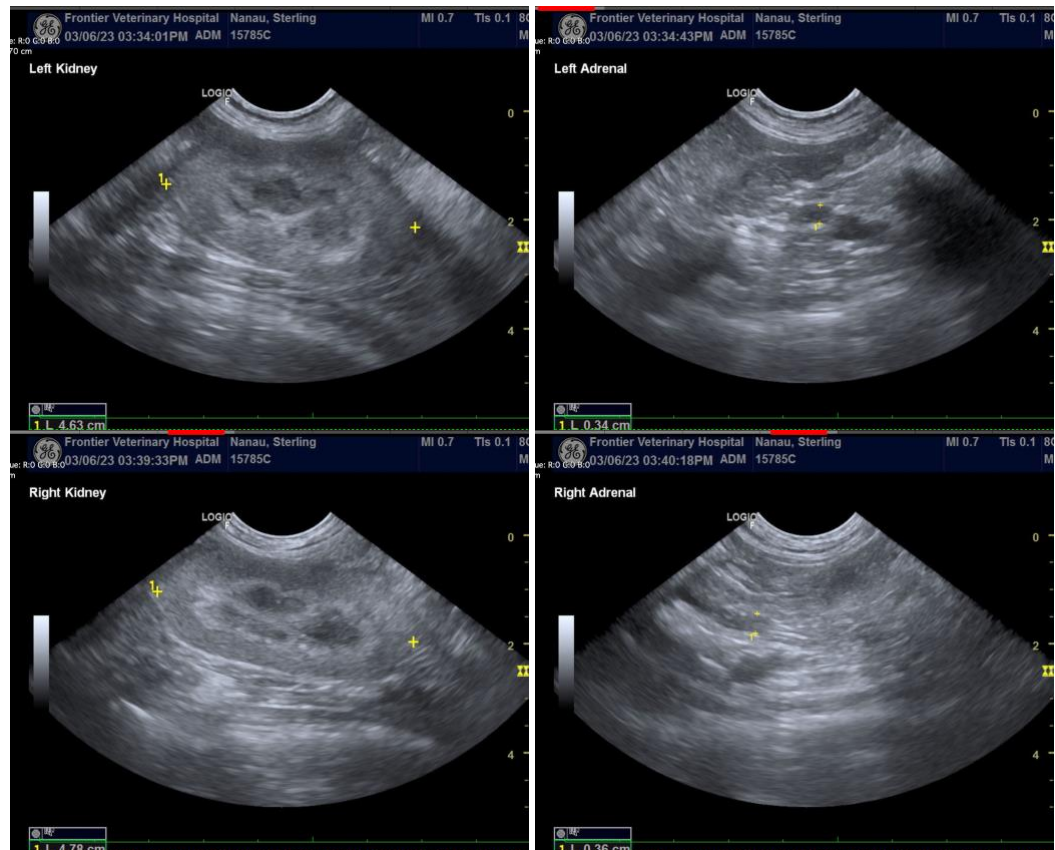
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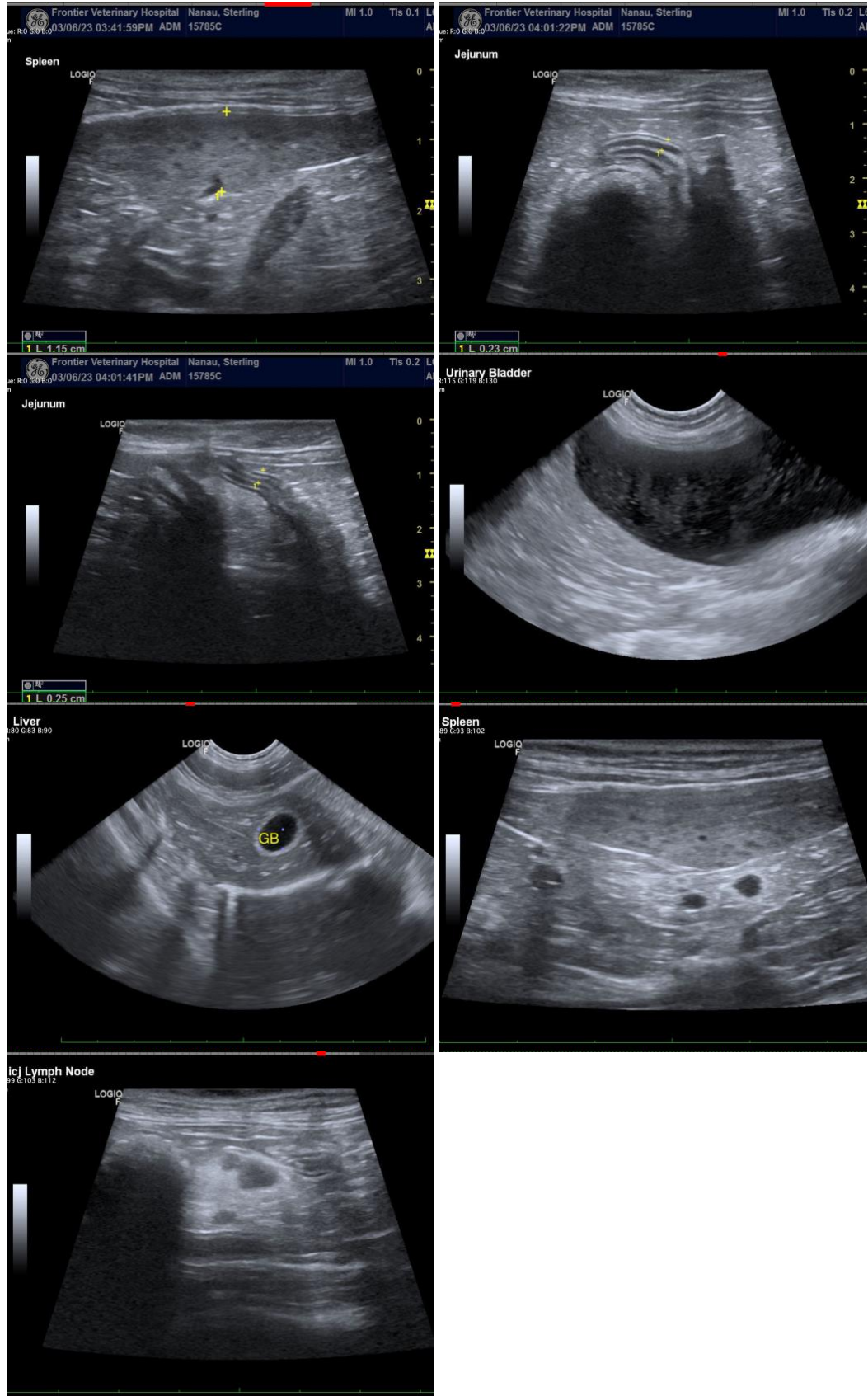
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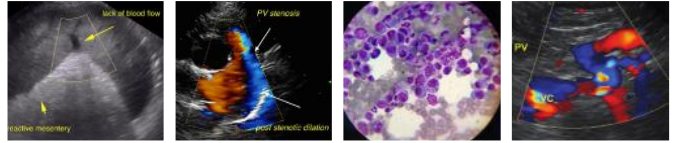
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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