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Clinical Sonography & Telecytology
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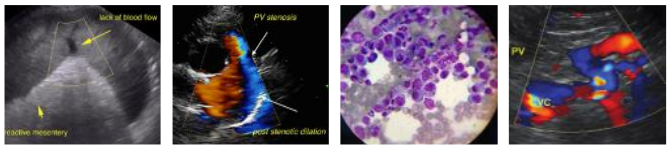


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Loki Neumerick

SPECIES
Feline

BREED
DLH

SEX
Neutered Male

AGE
17 Years

WEIGHT
11.2 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Amy Mayhew, LVT

HOSPITAL NAME
SVS Imaging MI

REFERRING VET
Dr. Shelby

INVOICE
21210

DATE
2/20/23

PRESENTING CLINICAL SIGNS

History: General ADR/ slight decreased energy. Mild improvement.

Abnormal PE/Chem/CBC/UA Results: Worsening anemia, CKD, abnormal BnP **See attached.

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.

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 3.71 cm. The right kidney measures 3.89 cm.

Adrenal Glands

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

Right adrenal gland is normal in size (0.47 cm), 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. The spleen measures 1.06 cm thick.

Liver

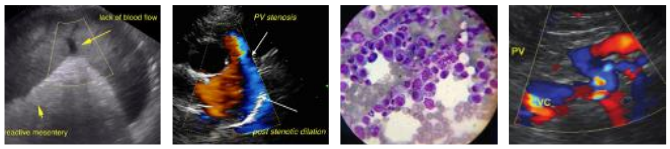
Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. A discrete 0.8 cm hypo- to anechoic cyst/nodule is noted. Visible vasculature and 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.

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



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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. 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

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

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

Secondary Findings

- Urinary bladder debris
- Age-related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient reported mild proteinuria, a urine protein to creatinine ratio is recommended if not recently evaluated, as is a blood pressure.

Additionally, as is reportedly already planned, an echocardiogram is recommended.

Given this patients high normal T4, a free T4 is recommended to help further diagnose early or mild hyperthyroidism.

Additionally, a fine needle aspirate of the spleen is recommended if patients coagulation status is appropriate.

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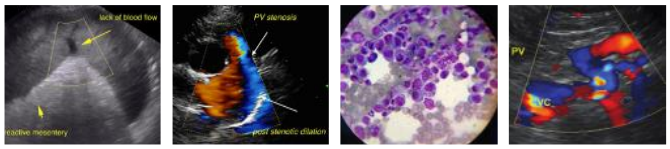

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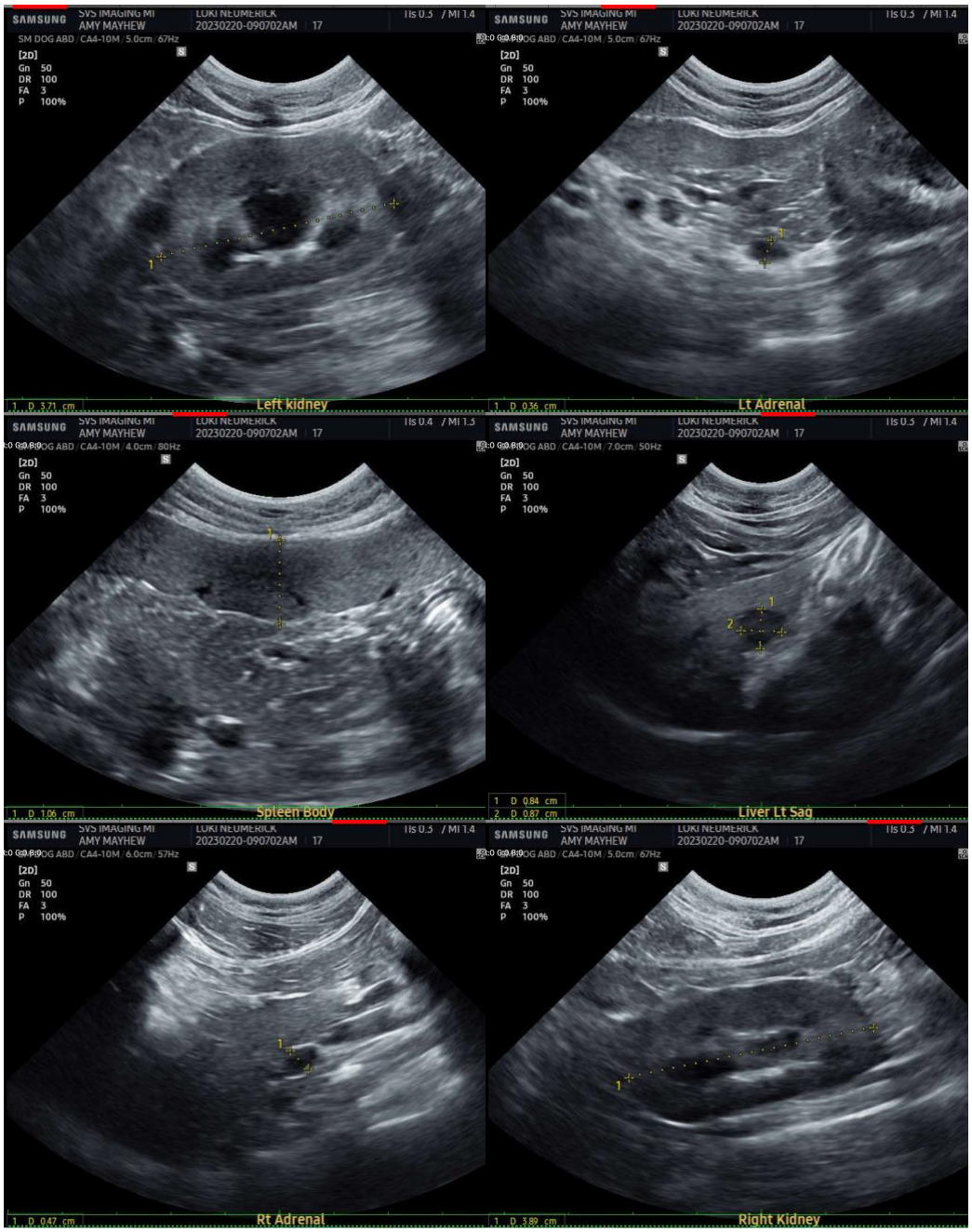
The bowel changes are mild and may/may not be related to this patients reported clinical signs. Further evaluation is recommended, beginning with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory, for further evaluation of GI and pancreatic function.

Pending results of the cardiac work up, as well as taking into account whether or not clinical signs of gastrointestinal disease are present, such as intermittent or chronic vomiting, diarrhea, weight loss, etc., ultimately, biopsies of the GI tract may be necessary for a definitive diagnosis.



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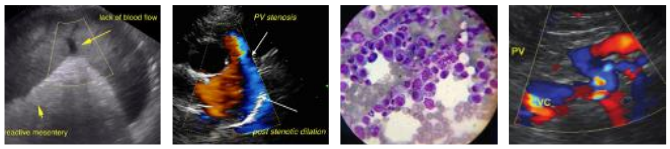

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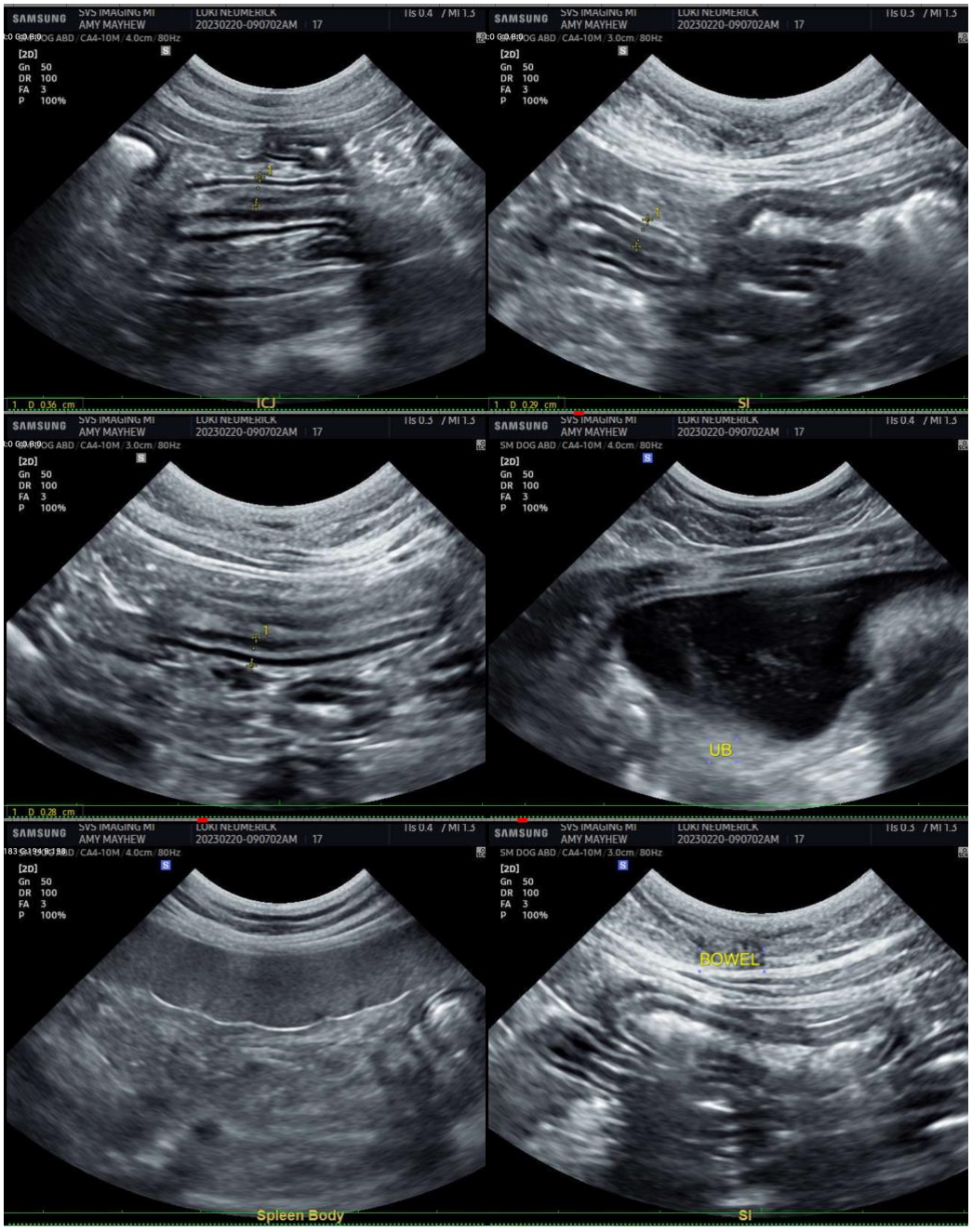

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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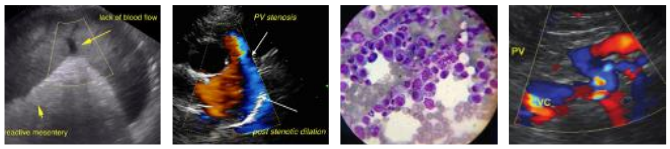

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