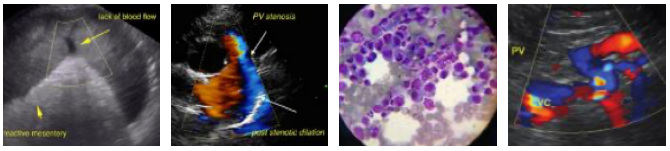
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
River Flagg

SPECIES
Canine

BREED
Lab

SEX
Male

AGE
8 months

WEIGHT
56.6 lbs.

INTERPRETED BY
Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY
Amy Mayhew

HOSPITAL NAME
SVS Imaging Michigan

REFERRING VET
Dr. Kenny

INVOICE
14580

DATE
2/14/23

PRESENTING CLINICAL SIGNS

History: Chronic history of medical problems. Giardia, ascites, diarrhea. Hematocrit 15% with regenerative anemia. Leukocytosis with a neutrophilia and monocytosis. SDMA 27, creatinine 1.4, BUN 61, albumin 1.7, globulins 2.2, ALT 439, ALP 520.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended. The wall in the region of the apex is mildly thickened (up to 0.56 cm) and slightly irregular. A small amount of echogenic to mineralized debris is observed within the lumen. A 0.40 cm mineralized focus (sand vs stone) is observed at the cystourethral junction. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is prominent in size (1.37 cm in width) with smooth curvilinear peripheral contours and homogeneous parenchyma. The prostatic urethra is not overtly dilated.

The left kidney is normal size (7.43 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. A few pinpoint foci of mineralization are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal size (7.81 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. A few pinpoint foci of mineralization are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal size (0.36 cm at cranial pole) (0.34 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (1.34 cm at cranial pole) (0.62 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is subjectively normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

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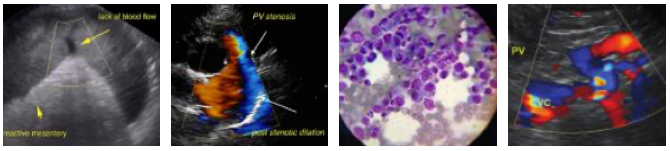

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The gastric lumen is distended with ingesta. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally fluid distended and appears hypomotile. A short segment of bowel appears mildly plicated. The small intestinal wall is normal to borderline thickened (up to 0.44 cm) with retention of the normal layering pattern. There is evidence of mucosal fogging in several segments. Discreet masses are not identified. The colonic wall is normal.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

A small amount of free fluid is observed. A few prominent mesenteric lymph nodes are visualized, the largest measuring 3.51 cm in length

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The small intestinal wall changes could be consistent with inflammatory bowel disease, infectious/parasitic disease, emerging neoplasia, lymphangiectasia, or other chronic enteropathy. The area of plication may represent a region of hyperperistalsis or less likely, linear foreign body/obstruction. Given the lack of significant bowel dilation, hyperperistalsis is favored over obstruction.
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with foci of mineralization.
- Mineralized urinary bladder sand +/- small cystic calculus. The urinary bladder wall changes could be consistent with cystitis or may be somewhat artifactual due to lack of full repletion.

Secondary Findings:

- The prostate changes are as expected for a young intact male.
- An obvious cause for the elevated liver enzymes is unclear. Considerations include inflammatory disease (i.e., bacterial cholangiohepatitis), Leptospirosis, congenital disease, other hepatopathy.

*Given the constellation of clinical signs, bloodwork abnormalities and sonographic changes, it is difficult to determine if one disease process or multiple disease processes are present.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to evaluate cardiopulmonary status.
- Consider clotting times including PT/PTT. If clotting status is appropriate, consider a fine needle aspirate of the abdominal fluid with submission for fluid analysis and cytology.

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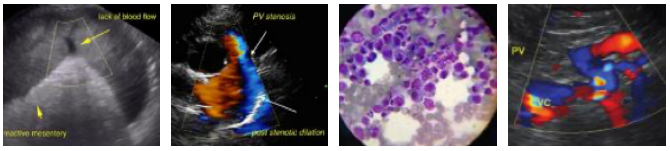

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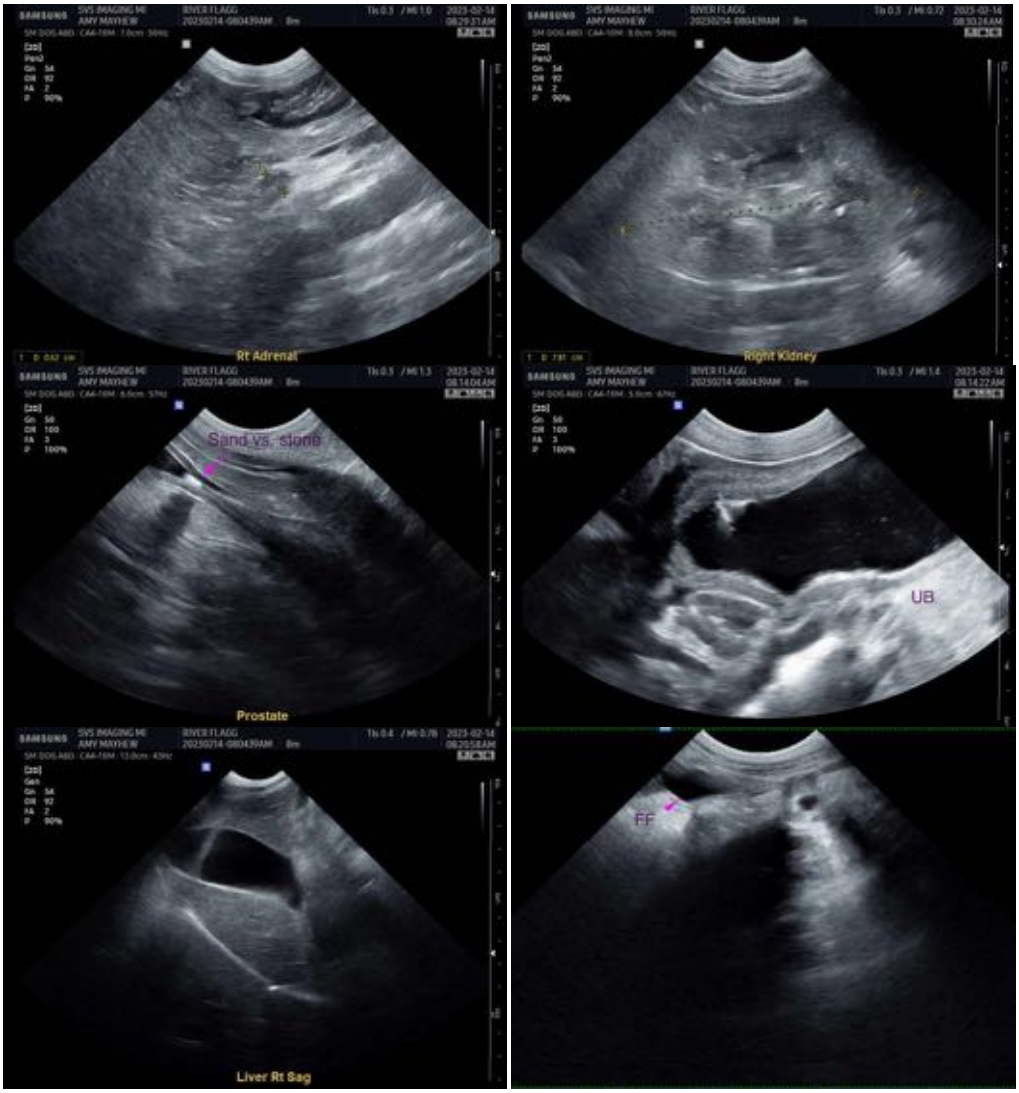
- Pre and post prandial serum bile acids are also recommended to assess hepatic function.
- Also consider Leptospirosis testing (i.e., blood and urine PCR, serology).
- Given the borderline azotemia, a urinalysis, urine culture and sensitivity +/- UPC (if proteinuria is present in the absence of infection) should be considered.
- Ultimately, if the patient can be stabilized, an abdominal exploratory with liver, GI and lymph node biopsies may be necessary to get a definitive diagnosis.



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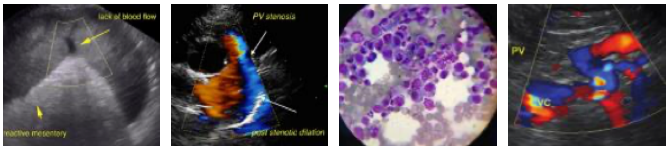

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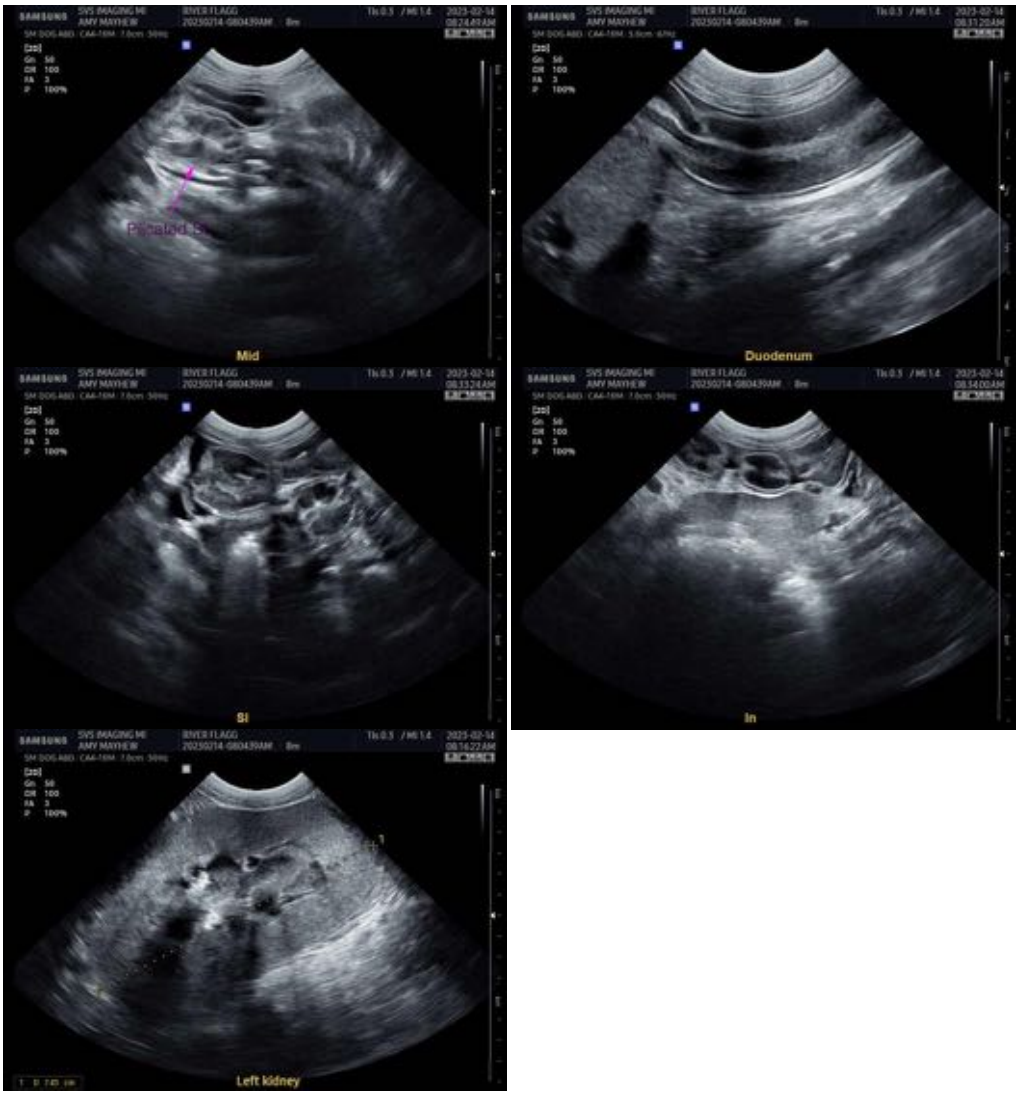

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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