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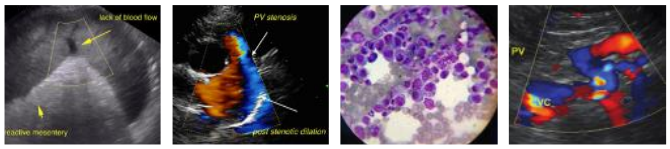


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Queue Balkam

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

13 Years 5 Months

WEIGHT

7.5 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Denise Bruno, LVT, RDMS

HOSPITAL NAME

Brooklyn Heights VH

REFERRING VET

Dr. Chan

INVOICE

17024

DATE

8/23/22

PRESENTING CLINICAL SIGNS

History of severe renal disease. Hypercalcemia, weight loss Current meds - SQ F, Renal diet Evaluate for lymphoma vs IBD vs other. Labs and previous AUS attached.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses are observed. Echogenic suspended debris, as well as mineral sand debris and small calculi are present along the dependent wall, including a small mineral foci (non-obstructing) within the urethra. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are bilaterally irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. Nonobstructive nephrolithiasis is present bilaterally. Mild pyelectasia is present bilaterally. The left kidney is normal in size, measuring 3.45 cm. The right kidney is small, measuring 2.32 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 (0.24 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. Multifocal well-demarcated hyperechoic homogeneous nodules are noted. Splenic vasculature appears normal.

Liver

Liver is relatively normal in size and contour. Parenchyma is mildly heterogenous and coarse with mild likely age-related parenchymal remodeling noted. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

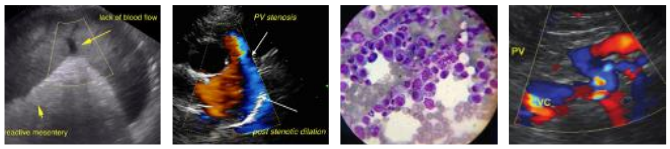
Gallbladder is non-distended in size. The wall is smooth but mildly hyperechoic in appearance. Luminal contents are primarily anechoic with some echogenic debris noted. There is no evidence of cystic or common bile duct dilation.

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 bowel within the videos appears normal and empty with no evidence of obstruction, foreign material or infiltrative disease, however, there are several still images of small bowel with some suspicion for early loss of layering, characterized by a loss of visible submucosa.

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



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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

- Chronic Kidney Disease with bilateral nephrolithiasis – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc. The appearance of the kidneys is markedly improved (much more mild pyelectasia) compared to the ultrasound in 2020.
- Urinary bladder debris, including mineral/sand
- Scalloped spleen with hyperechoic splenic nodules – 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. The hyperechoic splenic nodules are most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
- There is some possible early or emerging loss of normal small bowel layering present in some of the still images, which can be artifact, based on view, but can also be suggestive of infiltrative bowel disease, primarily infiltrative neoplasia, such as lymphoma.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations for this patients weight loss depend on the patients appetite. If this patients appetite is decreased, resulting in weight loss, then medical management geared at increasing appetite, which in this case could include antiemetics, gastroprotectants or potentially increase fluid therapy given the chronic kidney disease. However, if the weight loss is in the face of a normal or even increased appetite, especially given the suspected bowel changes, then further investigation of the GI tract is warranted with 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.

If it is determined or suspected that gastrointestinal disease is the cause of this patients weight loss versus a decreased appetite, secondary to kidney disease, then ultimately, biopsies of the GI tract, being sure to identify the areas of suspect loss of layering, are recommended to definitively diagnose and therefore, manage the infiltrative bowel disease. Alternatively, a fine needle aspirate of the spleen could be considered prior to more invasive biopsies, in case infiltrative neoplasia is affecting both the spleen and bowel.

In the meantime, further investigation of the hypercalcemia with a malignancy panel, which is reportedly already pending is recommended.

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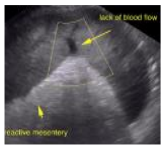
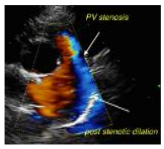
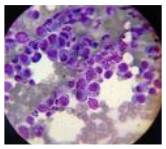
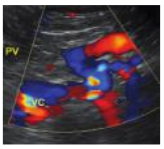

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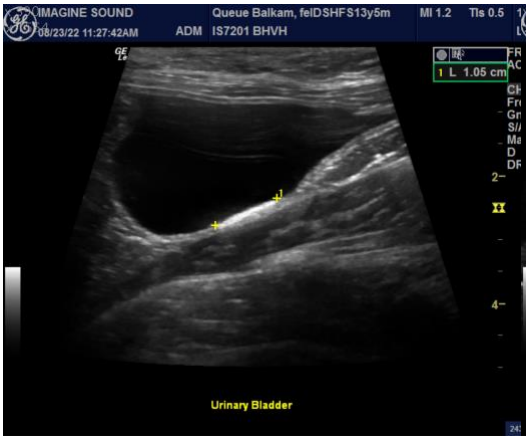

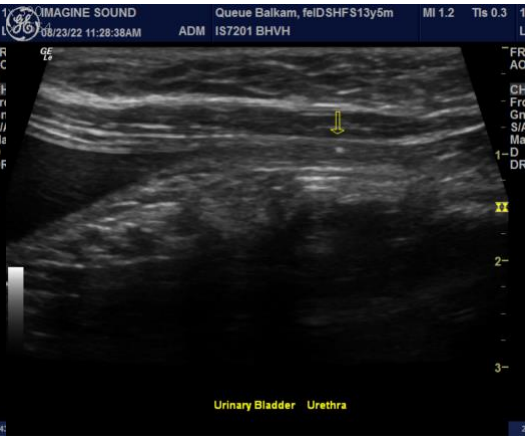

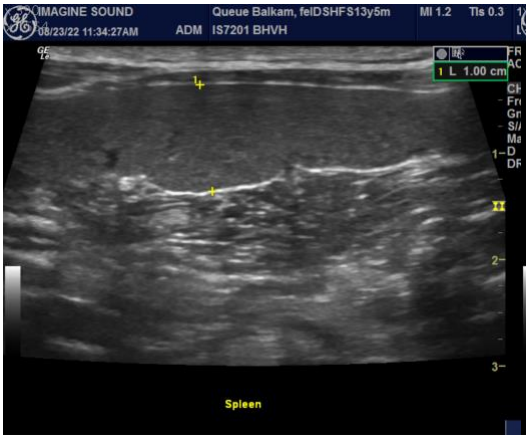

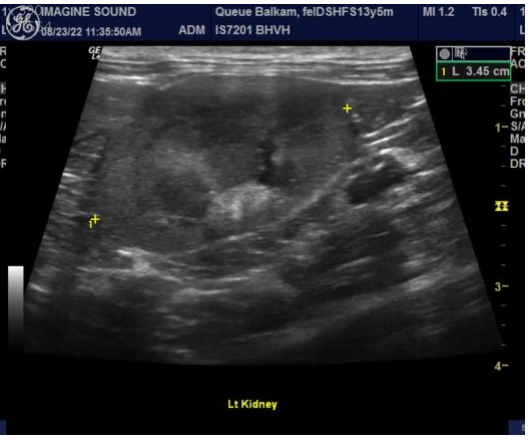

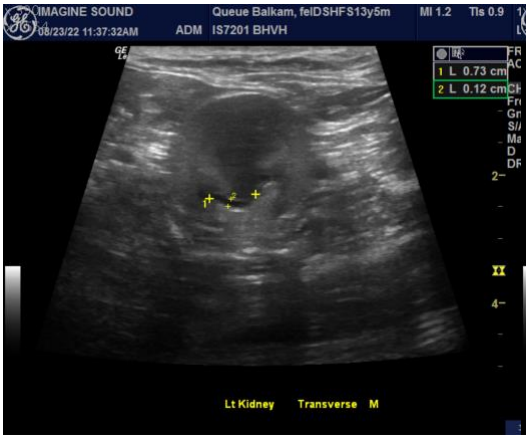

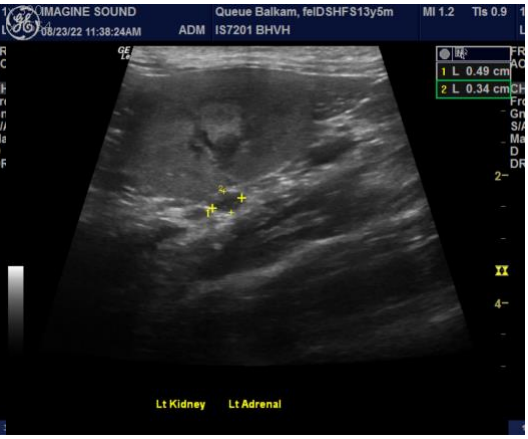

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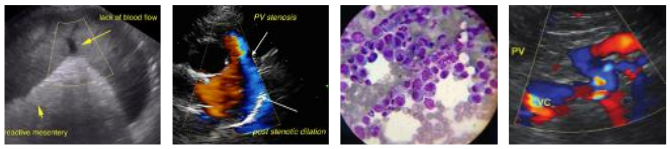

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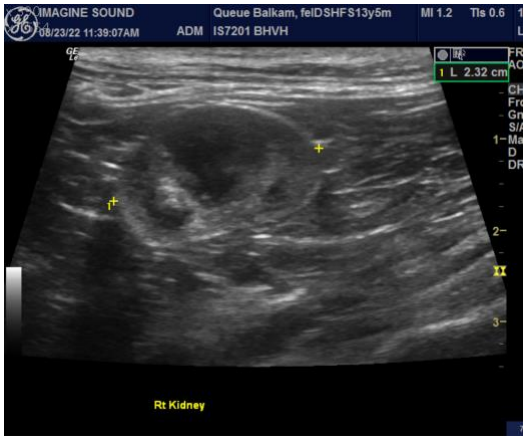

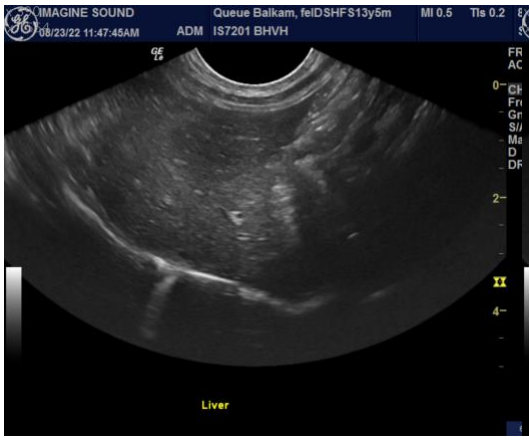

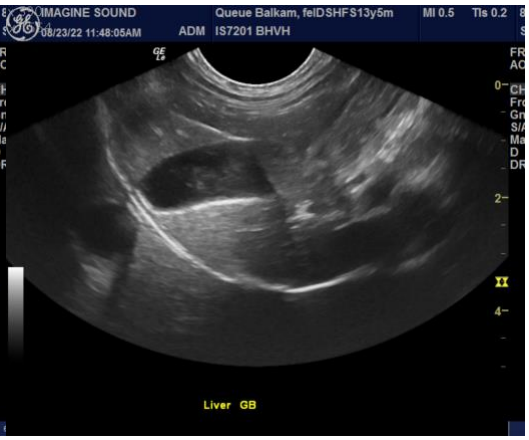

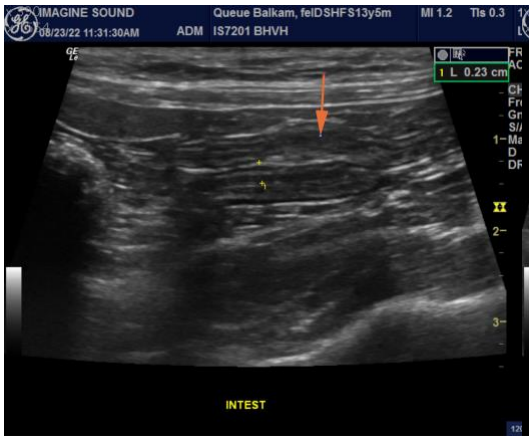

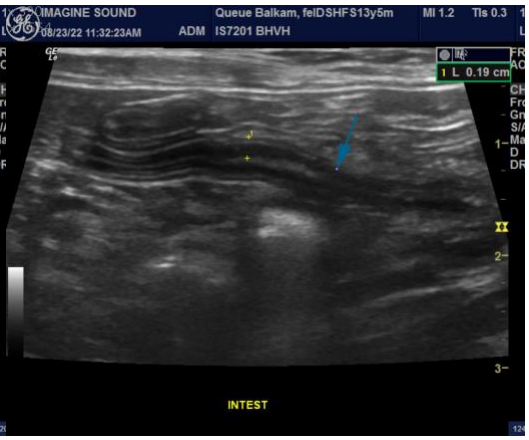

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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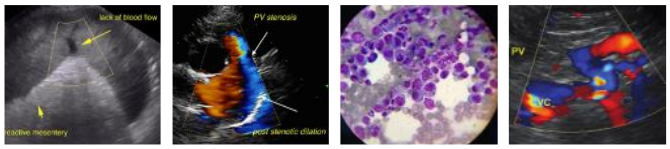

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