IMAGING PERFORMED BY

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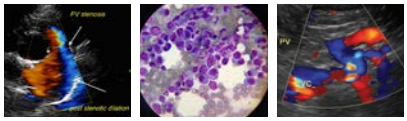

SonoPath
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DATE

8/26/21

PATIENT

Daisy Green

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

2013

WEIGHT

84 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME

Bayside AMC

REFERRING VET

Dr. Beigel

INVOICE

24977

PRESENTING CLINICAL SIGNS

Presented to ER on 8/21/21 for urinary issues; UA hematuria + pyuria, no bacteriuria; AFAST showed mass in bladder-- r/o TCC v polyp v blood clot v other.

Current Medications: Codeine 30mg
Lab Results: Attached
Radiographs: N/A
Date of Previous IntraPet Ultrasound: No previous
Sedation:
Stat Report:

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with primarily suspended echogenic debris. The bladder wall appears mildly diffusely irregular and thickening with some more severe focal thickening evidence in the somewhat apical dependent portion of the urinary bladder. The mucosa appears mineralized in this area with a focal mineralization measuring 0.38 cm x 0.4 cm, which I suspect is embedded in the mucosa. The maximal wall thickness including the mineralized embedded stone is 0.74 cm in this area. Maximal bladder wall thickness varies from 0.6-0.77 cm. The trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of significant wall thickening, mucosal irregularities, masses or calculi. Floating echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (6.54 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Rare, non-obstructive nephroliths noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.32 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Rare, non-obstructive nephroliths noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.48 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.57 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous and hypoechoic with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.38 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

PRIMARY FINDINGS

- Diffuse urinary bladder wall thickening with a focal area of mineralization and a subtle mass effect – most consistent with cystitis and secondary mineralization, but a neoplastic process cannot be ruled out.

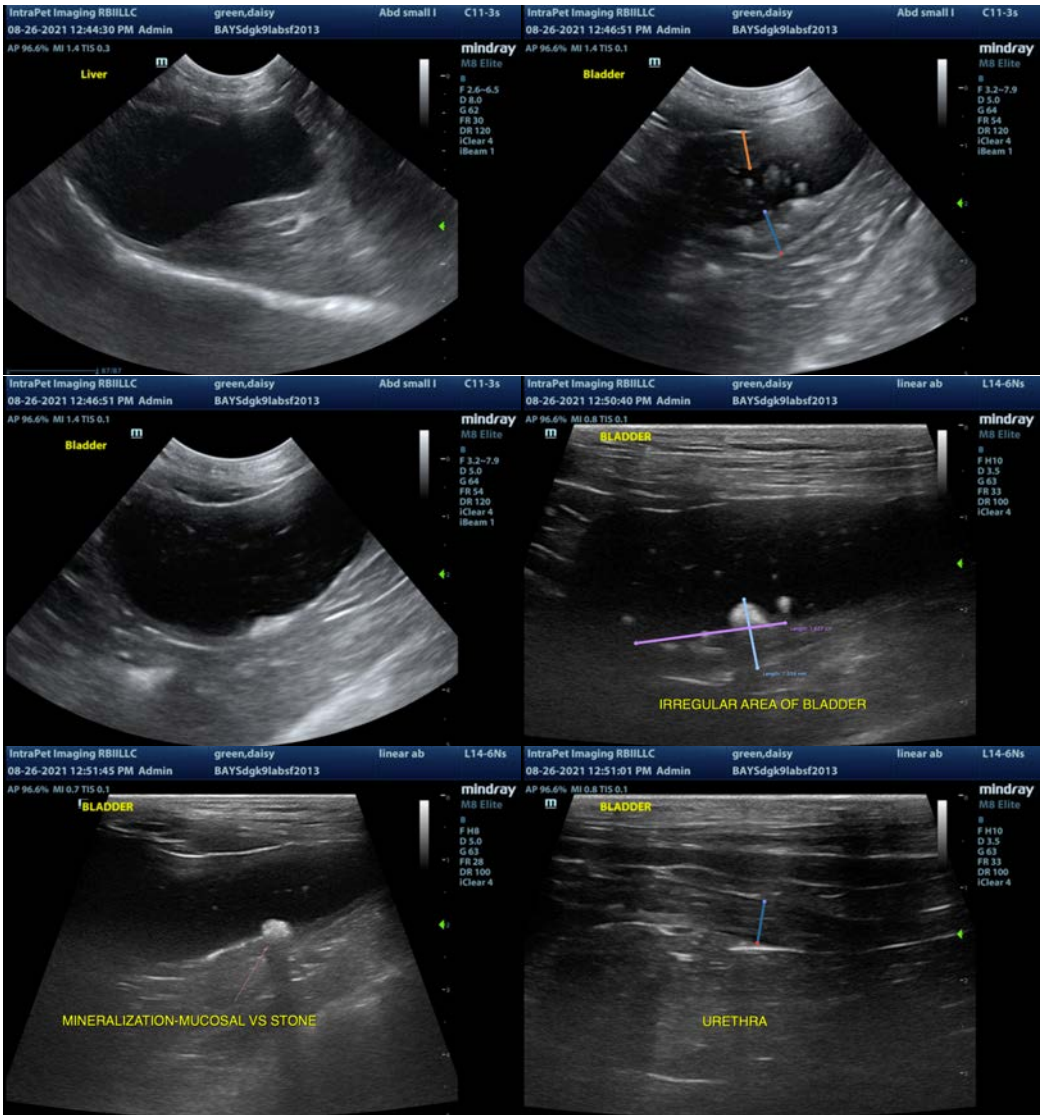
SECONDARY FINDINGS

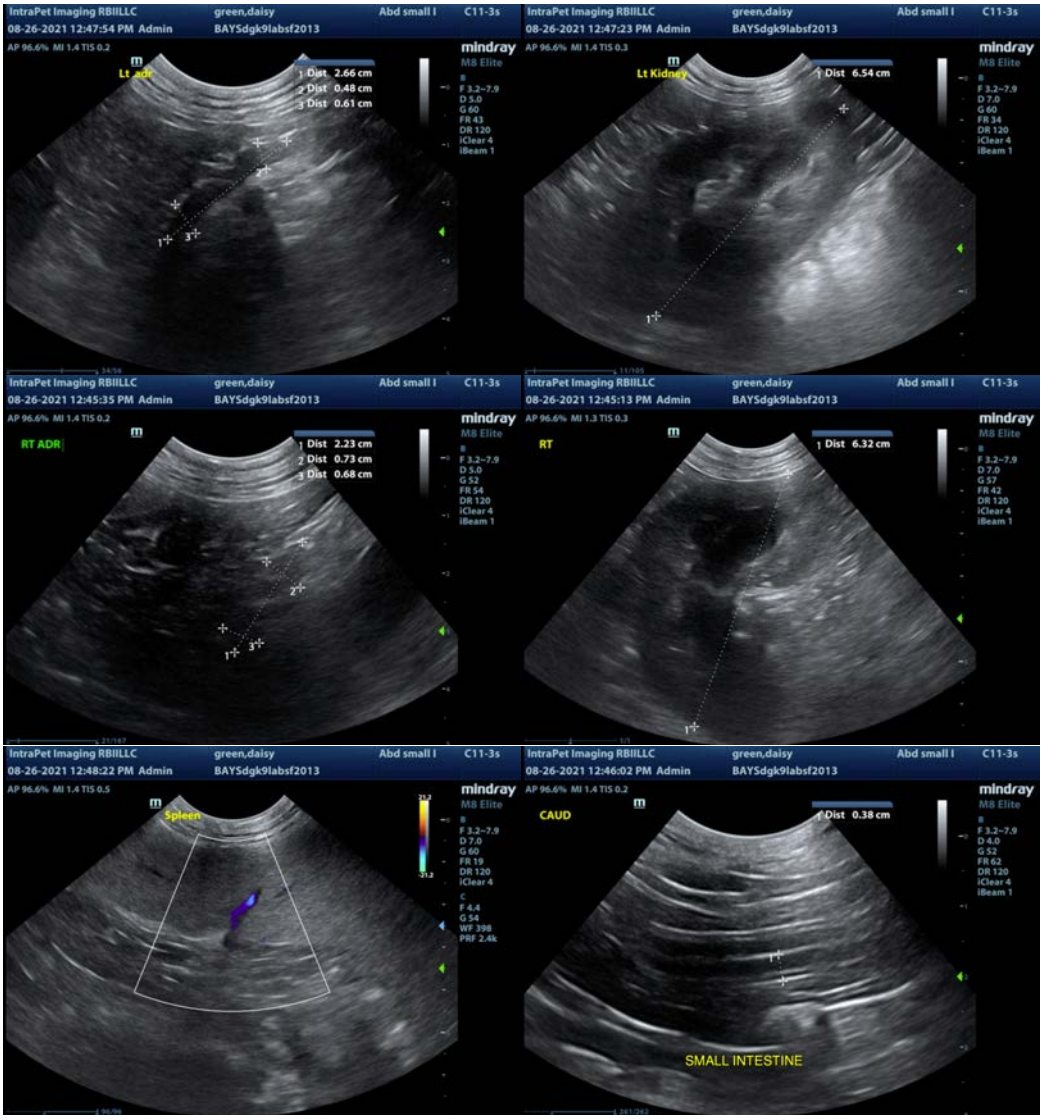
- Non-obstructive mineralization/nephroliths in both kidneys – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Mildly heterogeneous/hypoechoic liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. Correlate with blood work findings. If liver values are normal, this is likely an incidental finding.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The urinary bladder wall changes are largely diffuse in nature and more consistent with cystitis than a primary neoplasm. Unfortunately, there is a more focal area of the thickening and mineralization, which is concerning. Recommend aggressive antibiotic therapy based on culture and sensitivity results, and reevaluation of the urinary bladder in 2-3 weeks. At that time, the urine should have a recheck urinalysis and culture while on antibiotics to assess efficacy of therapy. If bladder changes are not improving with antibiotic therapy, the concern for neoplasia increases, and a urine BRAF test or traumatic catheterization should be considered. Use caution interpreting the urine BRAF test, as a negative test does not rule out cancer. Additionally, the mineralized areas may take longer to resolve, but I would like to see some improvement over a few weeks. If urinalysis and culture was not performed prior to antibiotic therapy, reculture on antibiotics at this time to obtain a baseline. If negative, continue therapy as outlined. If positive, adjust antibiotic therapy as indicated.





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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