IMAGING PERFORMED BY

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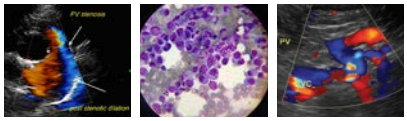

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DATE

12/21/21

PATIENT

Lola Riley

SPECIES

Canine

BREED

Chorkie

SEX

Spayed Female

AGE

9/2/11

WEIGHT

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Animal Care Center

REFERRING VET

Dr. Beavers

INVOICE

33614

PRESENTING CLINICAL SIGNS

History: Having urinary accidents in house often as well as having to urinate multiple times outside.

Current Medications: Ursodiol, Enalapril, Apoquel, Ligaplex II, Fluconazole.
Lab Results: Attached separately.
Date of Previous IntraPet Ultrasound: 9-21-2021.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The apical portion of the bladder wall largely appears normal with minimal evidence of wall thickening or mucosal irregularities. In the trigone area, there is a focal thickening measuring 0.71 cm x 0.69 cm, which is located in the trigone area and at the cystourethral junction with extension of thickened tissue into the proximal urethra. There is no evidence of cystic calculi.

The left kidney has a normal shape and size (3.59 cm) with multiple moderately size non-obstructive stones measuring between 0.25-0.57 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.73 cm) with small pinpoint nonobstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.49 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 0.62 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 somewhat prominent and hypoechoic in some areas compared to the surrounding isoechoic mesentery. The splenic echotexture is mildly heterogeneous and mottled, but there is a focal area in the head of the spleen where the splenic capsule is irregular and surrounded by hyperechoic mesenteric with more focal mottling and hypoechoic tissue. This irregular area measures approximately 1.5 cm. Additionally, there is an irregular hypoechoic lesion towards the body of the spleen measuring 0.43 cm. The changes observed in the head of the spleen appear similar to those described 3 months ago. The hypoechoic nodule may be a new lesion.

Liver

The liver is large in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris (improved from previous scan on 9/21/21). 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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

- Irregular, abnormal tissue in the trigone/cystourethral junction area of the urinary bladder. The location of this mass effect is concerning for a possible transitional cell carcinoma. It is slightly less irregular than a typical TCC. Therefore, a benign inflammatory polyp cannot be ruled out. This is a new finding.

- Large, hyperechoic liver – The diffuse hepatic changes are non-specific and can be seen with vacuolar hepatopathy, reactive change, nodular hyperplasia or, less likely, inflammatory/immune-mediated disease, infiltrative neoplasia, or other hepatopathy. Findings are stable from previous exam.

- Mottled spleen with focal hypoechoic irregularity in the head and a hypoechoic nodule – Findings could be consistent with benign change (previous infarct, extramedullary hematopoiesis, lymphoid hyperplasia, etc.), or could be consistent with a neoplastic condition. While this lesion does not appear to have changed dramatically, there is a new hypoechoic nodule visualized.

SECONDARY FINDINGS

- Decreased corticomedullary distinction in both kidneys with non-obstructive nephroliths – The bilateral renal findings are consistent with age-related change. The hyperechoic mineralized foci observed at the corticomedullary junction of the left and right kidney are consistent with small, non-obstructive nephroliths. These findings are stable from previous exam.

- Mild gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting. Findings appear improved from the last scan.

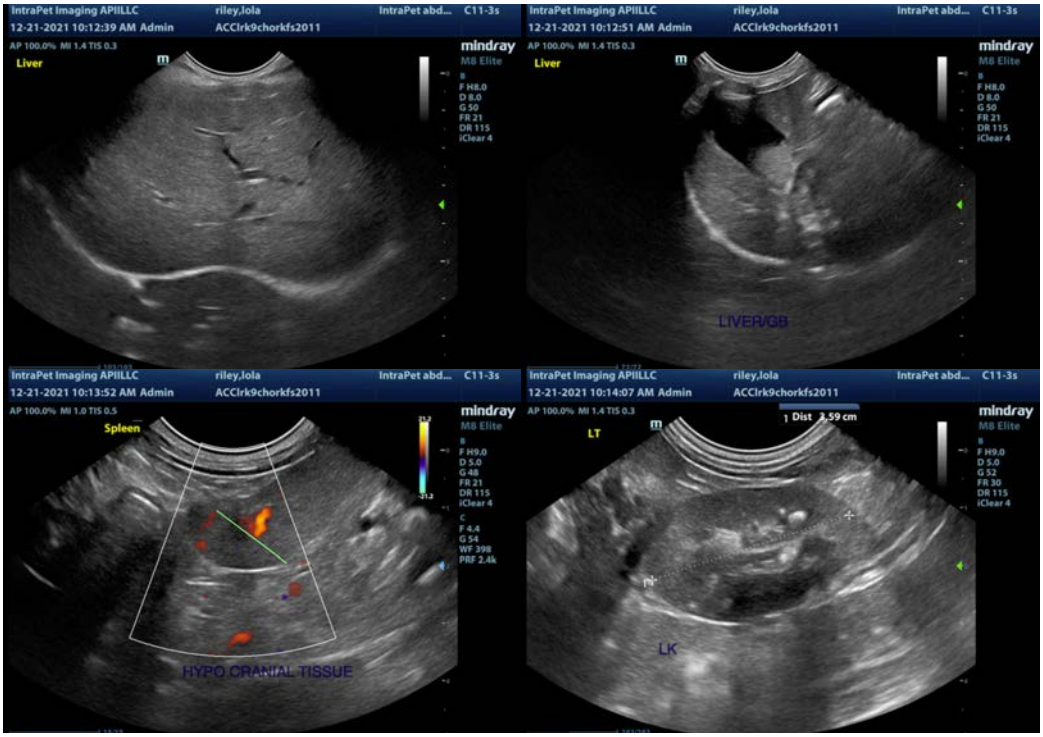
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

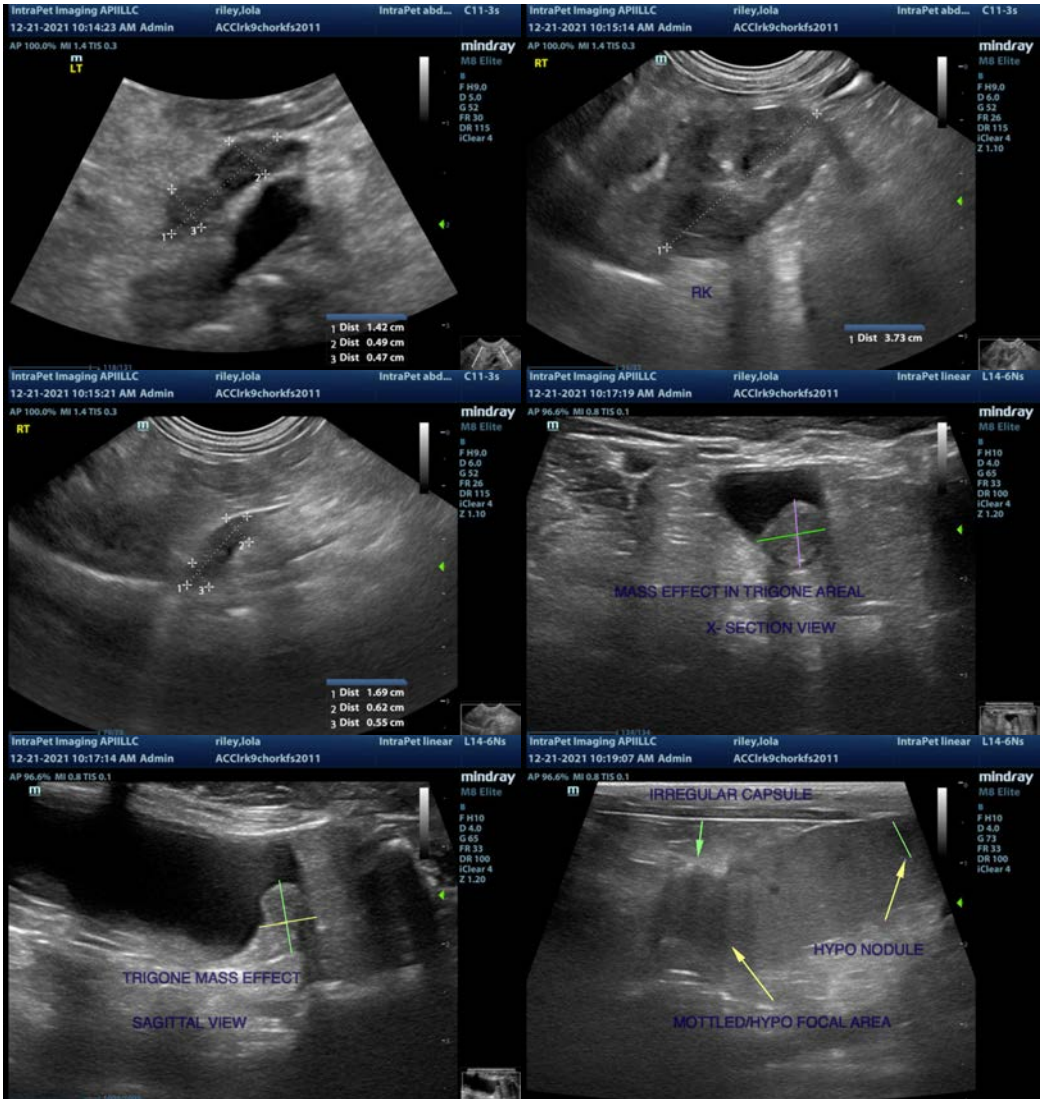
The focal mass in the bladder has the characteristics most consistent with a neoplastic lesion, but polyps and inflammatory lesions can sometimes have a similar appearance. A definitive diagnosis cannot be determined by ultrasound alone.

-Recommend urine evaluation for BRAF mutation seen in patients with transitional cell carcinomas. A positive test is diagnostic, a negative test is inconclusive and will need further diagnostics.
-If negative or non-diagnostic BRAF consider traumatic catheterization to obtain representative cells for cytology, or biopsy sampling via either cystoscopy (if a female) or surgery.
-Patients with bladder pathology should always have urinalysis and culture performed. Ideally cystocentesis should be avoided in patients with suspected bladder masses to try and prevent tracking of tumor cells along the needle path.
-If TCC is confirmed consider referral to/consultation with a board certified. Veterinary oncologist for recommendations regarding treatment options and prognosis.

The changes observed in the liver, gallbladder and kidneys appear stable from the previous exam, and the hepatic changes are likely secondary to Prednisone therapy.

The changes in the spleen are of questionable significance. There has not been dramatic change, but there is a new hypoechoic nodule visualized. Recommend a fine needle aspirate of the spleen (if not already done).





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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