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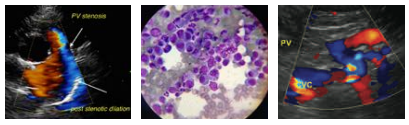

SonoPath
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DATE
8/24/21

PATIENT
Scrappy Hamilton

SPECIES
Canine

BREED
Papillion

SEX
Neutered male

AGE
2009

WEIGHT
4.1 lbs

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

HOSPITAL NAME
Creswell VC

REFERRING VET
Dr. Cullum

INVOICE
91449

PRESENTING CLINICAL SIGNS

Patient began having urinary issues (straining to urinate, increase in frequency, and having accidents)- symptoms started 5/2020. No improvement seen w/ Convenia inj. given on 5/10/21. Abdominal Radiographs were unremarkable on 6/21/21. Only mild improvement seen after Enrofloxacin started on 6/21/21.
Current Medications: 5/10/21 Tx'd: 0.2cc Convenia SQ.
6/21/21 Rx'd: 1/2 tab 22.7mg Enrofloxacin PO SID x 14 days.
Lab Results: UA 5/10/21: protein 2+, PH 8.0, S.G. > 1.050.
Radiographs: Abdominal Radiographs were unremarkable on 6/21/21.
Date of Previous IntraPet Ultrasound: No previous
Sedation: not needed
Stat Report: not requested

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. There is focal thickening of the bladder wall measuring approximately 1.09 cm in the ventral lateral portion of the urinary bladder. The wall in this area is irregular, thickened and mineralized. Adjacent to this abnormal area of bladder is a hypoechoic, rounded mass effect that measured 1.7 cm in height and approximately 3.1 cm in width. This mass effect could be consistent with a local lymph node or a mass arising from the urinary bladder. The dorsal aspect of the bladder wall appears relatively normal. The urethra appears relatively normal with no evidence of masses or cystic calculi.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney is somewhat rounded in shape and is normal in size (3.6 cm). Overall echogenicity is hyperechoic and there is severe hydronephrosis present with the renal pelvis measuring 0.89 cm in cross section. The proximal ureter is also dilated and measured approximately 0.5 cm and it can be followed several centimeters distal to the kidney. A ureteral obstruction is not visualized, but I suspect that the mass effect at the level of the bladder is causing an obstruction.

The right kidney has a normal shape and size (3.1 cm) with a rare, non-obstructive nephrolith. 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 0.58 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 0.46 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 homogenous echotexture. 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 gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. 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
There is a small amount of anechoic free fluid. There is a moderate lymphadenopathy (prominent lymph node seen near the left kidney and it is possible that the mass effect lateral to the urinary bladder is a lymph node measuring approximately 1.7 cm. The omentum is generally of increased echogenicity.

ULTRASONOGRAPHIC FINDINGS
PRIMARY FINDINGS:

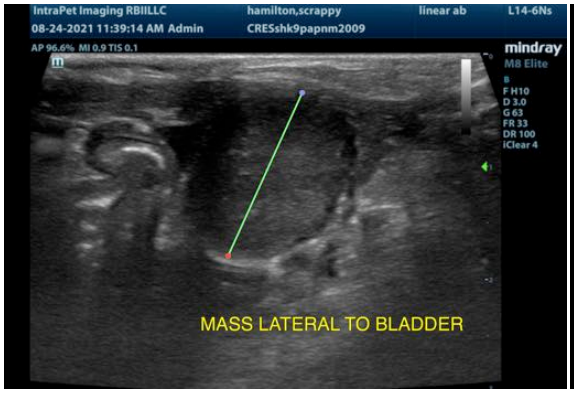
- Left-sided hydronephrosis and hydroureter.
- Mineralized bladder mass with associated bladder mass or enlarged lymph node.

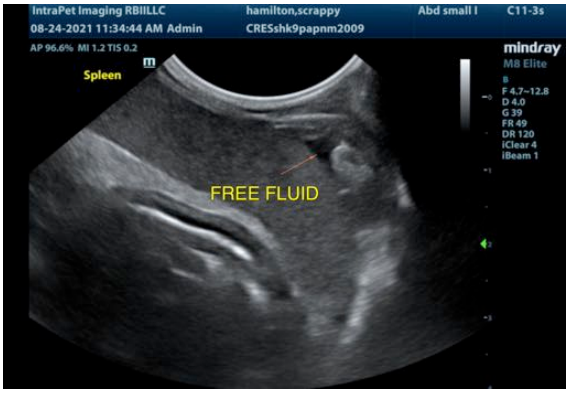
SECONDARY FINDINGS:

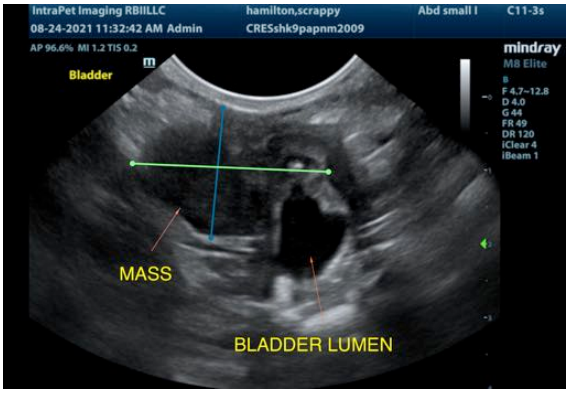
- Moderate gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Decreased corticomedullary distinction in the right kidney. Mild loss of corticomedullary distinction could be consistent with chronic degenerative disease or interstitial nephrosis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The ultrasound findings are consistent with a left-sided ureteral obstruction. Based on the appearance of the urinary bladder I suspect that it is obstructed distally at the level of the urinary bladder either by the mass effect or possibly by the mineralization seen adjacent to the bladder wall. Primary concern would be neoplastic process with metastasis to the local lymph node. This is an atypical presentation, so I cannot rule out other possible abnormalities such as congenital defects or an atypical neoplastic process such as lymphoma, etc. I recommend FNA of the adjacent bladder mass/lymph node, urinalysis and culture. You can consider FNA of the urinary bladder wall/mass with knowledge that there is some risk of tracking tumor cells. Alternatively, you can catheterize this patient and perform traumatic catheterization and/or perform a urine BRAF test. If the urine BRAF test is positive this would be highly suspicious for TCC, if negative this test is non-diagnostic and additional diagnostics would need to be considered. I recommend three view thoracic radiographs.





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BLADDER
mindray
M8 Elite


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linear ab
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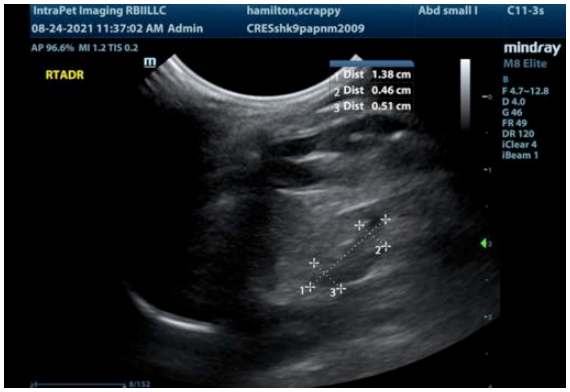
BLADDER
MINERALIZATION IN BLADDER
mindray
M8 Elite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RTADR
1 Dist 1.38 cm
2 Dist 0.46 cm
3 Dist 0.51 cm
mindray
M8 Elite


IntraPet Imaging RBIILLC
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RT
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RK
mindray
M8 Elite


IntraPet Imaging RBIILLC
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Abd small I
C11-3s
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Lt adr
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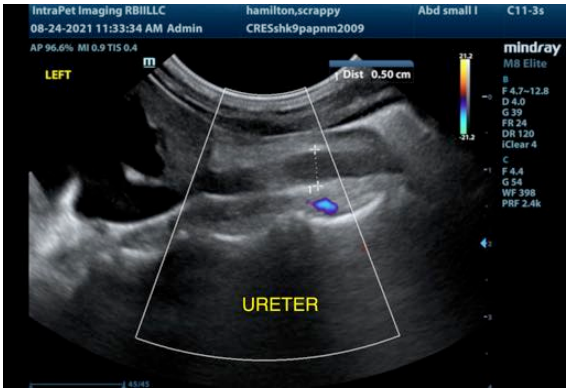
3 Dist 0.46 cm
mindray
M8 Elite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hamilton,scrappy
Abd small I
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LEFT
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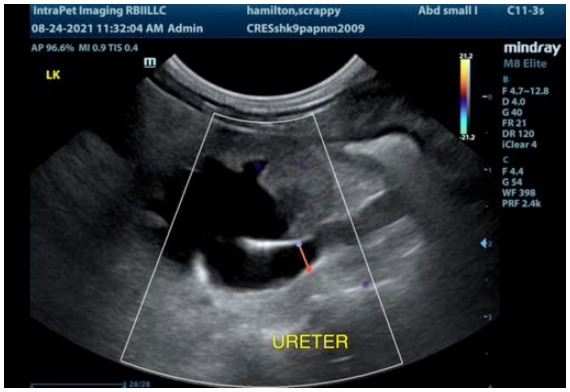
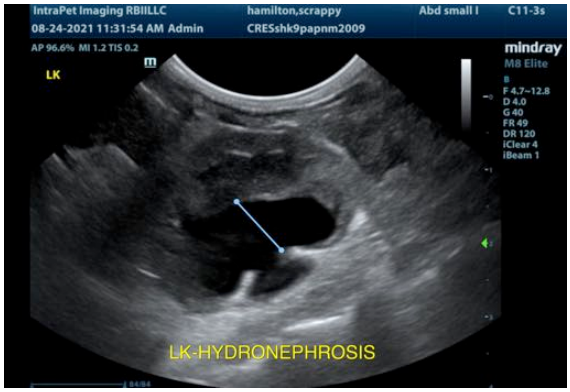
URETER
mindray
M8 Elite





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.

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