**DATE PRESENTING CLINICAL SIGNS**

2/23/23 Stranguria, hematuria, no stone noted on radiographs, FAST scan reveals severely thickened bladder, pet not responding to antibiotics.

PATIENT

Pinz Molan Current Medications: Enrofloxacin 0.6ml BID, Meloxicam 1.5mg/ml 0.07ml SID, Gabapentin 0.07ml BID, Prazosin 0.5ml 1 pinch BID.

SPECIES

Ferret

Lab Results: Minimal azotemia, BG good, sl elevated ALP.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: Requested.

BREED

Imaging Performed By: Andi Parkinson, BS, RDMS.

Urinary System**SEX**

M/N

AGE

4/6/2019

WEIGHT

1180 grams

INTERPRETED BY

R. McKenzie Daniel,
 DVM, DABVP
 (Canine and Feline)

HOSPITAL NAME

Warm & Fuzzy

REFERRING VET

Dr. Urie

INVOICE

16259

The urinary bladder was normal in size and overall tone. Diffuse thickened urinary bladder walls were present exhibiting mild nonhomogeneous mural echotexture and mild asymmetrical luminal surface contour. No evidence of mural mineralization was noted. Anechoic urine was present in the bladder with subjective mild particulate sediment. Suspect indistinct apical to ventroapical minor urinary bladder mural proliferation exhibiting similar echogenicity to the discernable urinary bladder wall. Intermittent mild yet hypoechoic to swollen regional lymph nodes were noted around the urinary bladder. An example of the urinary bladder lymph nodes measured 1.2 cm in width. No evidence of pericyclic free fluid. The urethra exhibited overtly normal structure and tone to a depth of 2.0 cm. The urinary bladder wall measured 0.57 cm width.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation or pyelectasia. The left kidney measured 2.8 cm in length. The right kidney measured 2.9 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.34 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.30 cm width. No adrenal tumors were noted.

Spleen

The spleen exhibited subjective borderline to mild enlargement yet primarily maintained symmetrical capsule contour and a finely textured homogeneous parenchyma. Potential for minor splenic parenchyma hypoechoic is possible. No masses or nodules were noted. The spleen measured 0.97 cm width at the level of the hilus.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

Concurrent to intermittent, mid to cranial abdominal mesenteric lymph nodes were present. These lymph nodes were homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. An example of lymph node size was 1.6 cm width.

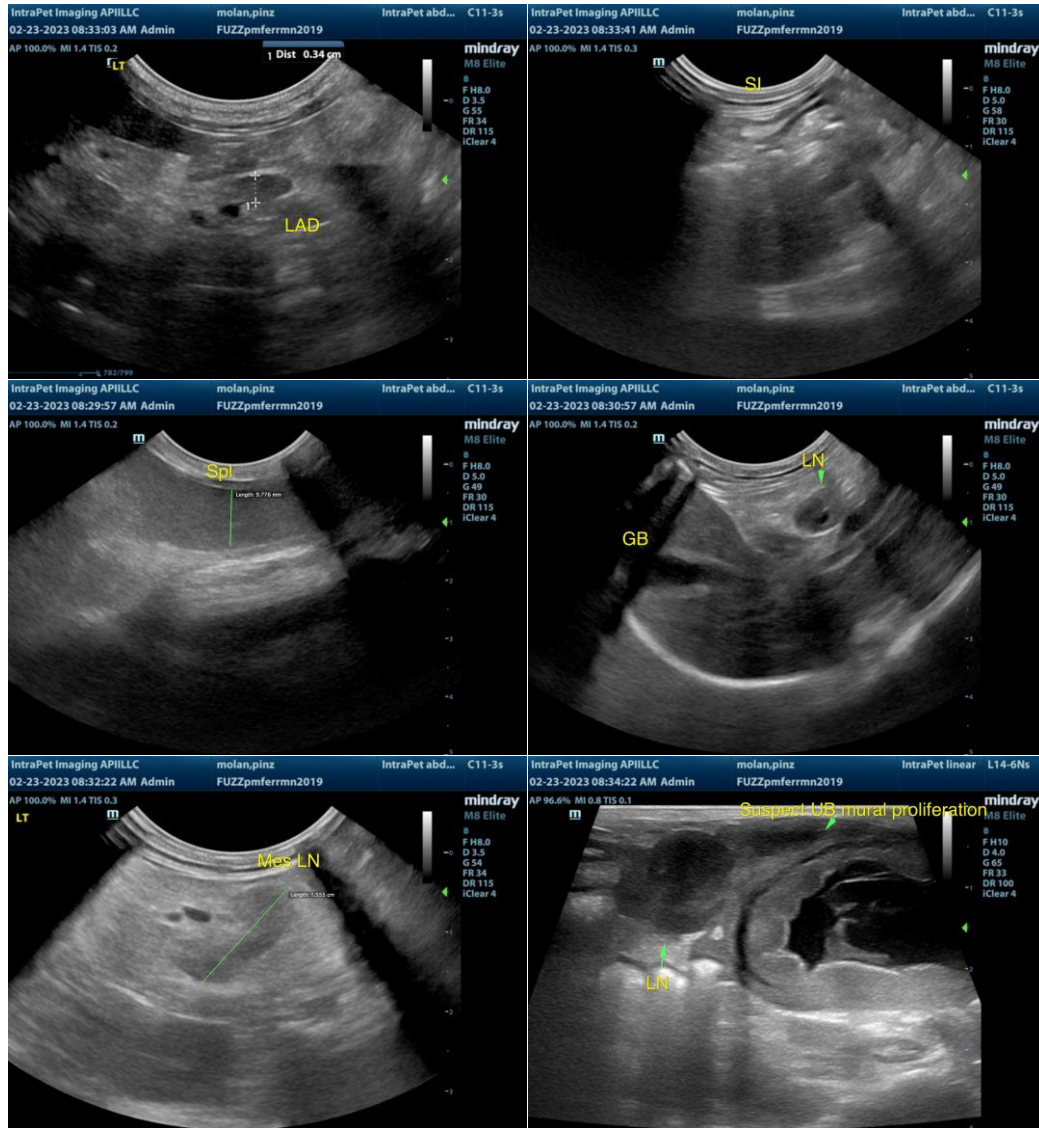
ULTRASONOGRAPHIC FINDINGS

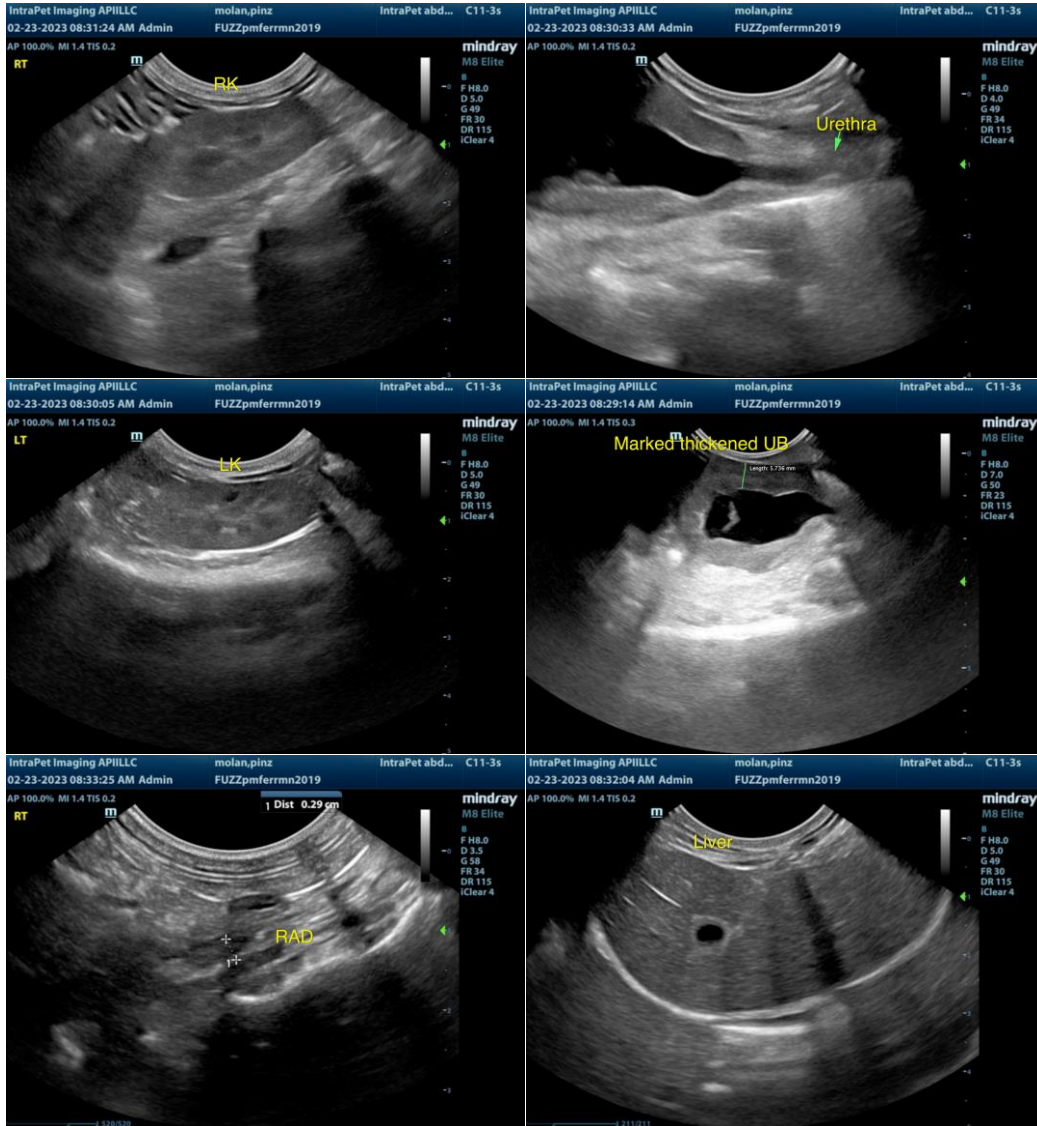
- Diffuse to markedly thickened urinary bladder, suspect mild ventroapical mural proliferation
- Associated pericyclic and intermittent mesenteric lymphadenopathy
- Subjective mild splenomegaly
- Normal bilateral kidneys

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although sampling is required for a definitive diagnosis, primary concern for extensive infiltrative urinary bladder neoplasia with regional pericyclic and possible mesenteric lymphatic involvement is warranted. Severe chronic cystitis and/or potential for embedded infectious cystitis with regional pericyclic to intermittent mesenteric lymphadenitis is possible yet thought less likely, given the sonographic appearance of the bladder, regional lymph nodes, and clinical history. Potential for early splenic involvement, given the possible primary consideration for multicentric round cell neoplasia, cannot be excluded.

Further assessment may include potential FNA cytology of the thickened urinary bladder wall and regional lymph node, as well as screening splenic cytology, assuming normal clotting status and using a 25-gauge needle. An extremely guarded prognosis is indicated.





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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com