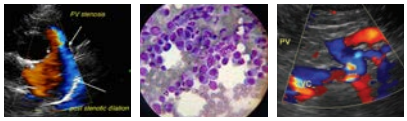
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

9/27/22

PATIENT

Max Delp

SPECIES

Canine

BREED

Aussie X

SEX

Neutered Male

AGE

6/21/09

WEIGHT

38.6 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Happier at Home Mobile Vet

REFERRING VET

Dr. Haskin

INVOICE

41673

PRESENTING CLINICAL SIGNS

Change in urination, strains to go mid stream (Starts off with OK stream), postures for long time, accidents in house - usually in sleep, large puddles
Acting otherwise good, eats well and is active (although little more sluggish lately) PE - thickened caudal abd, R/O thickened bladder- TCC

Current Medications: Enrofloxacin and Carprofen - both just started
Radiographs: no obvious uroliths, ST opacity in area of Sub-lumbar LN and bladder neck subjectively thicker than normal on rads
Date of Previous IntraPet Ultrasound: No previous.
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 majority of the apical bladder wall appears normal in thickness and is smooth with no mucosal irregularities. In the region of the trigone, ureteral papillae and proximal urethra, the wall appears severely thickened and irregular with hyperechoic shadowing, most consistent with mineralization. In this region the bladder wall measures 0.73 cm and there is a mass effect evident in the trigone region. This irregular mineralized tissue extends into the proximal urethra, which has a diameter of 2.26 cm and bladder wall thickness of 1.2 cm, and to the prostate, which is poorly demarcated and irregular (see prostatic description). Findings are most consistent with a transitional cell carcinoma, although other differentials exist.

The prostate is poorly defined, heterogeneous, and irregular, measuring approximately 2.3 cm in height in the sagittal view. The pre-prostatic urethra is severely irregular and thickened and coalesces into what is suspected to be a heterogeneous irregular prostate.

The left kidney has a normal shape and size (6.09 cm) and pyelectasia at 0.63 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.28 cm) with pyelectasia at 1.24 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.78 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 0.81 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 heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a cystic hyperechoic mass lesion measuring approximately 3.63 cm x 3.07 cm deep on the left side, adjacent to the diaphragm.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and 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. 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. There is a large, irregular, hypoechoic sublumbar mass/lymph node measuring 1.48 cm x 3.26 cm. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Irregular, thickened, mineralized bladder wall in the region of the trigone, extending into the proximal urethra and to the prostate – findings are very concerning for a neoplastic process. Recommend sampling.

- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – The bilateral renal findings are consistent with age-related change. Pyelectasia of the kidney(s)could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. The pyelectasia in this case is likely due to increased resistance due to the trigonal mass.

- Heterogeneous liver with hyperechoic cystic lesion – 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. The cystic lesion observed could represent a benign or neoplastic process.

- Large, irregular sublumbar mass/lymph node – Findings are concerning for possible metastasis, although a reactive lymph node is possible.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

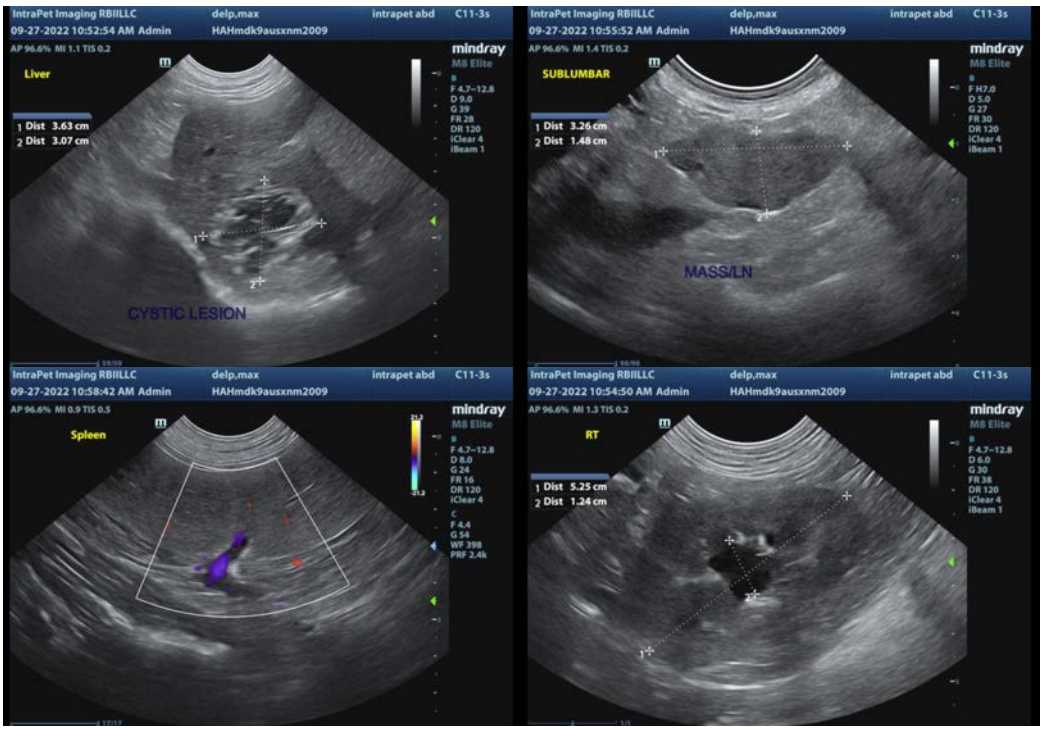
The bladder wall in the region of the trigone and proximal urethra is very abnormal and thickened. This abnormal tissue coalesces into the prostate, making it difficult to differentiate. Consider passing a catheter to the level of the prostate/trigone and obtaining a sample (traumatic catheterization) for cytologic analysis. Additionally recommend a urinalysis and culture.

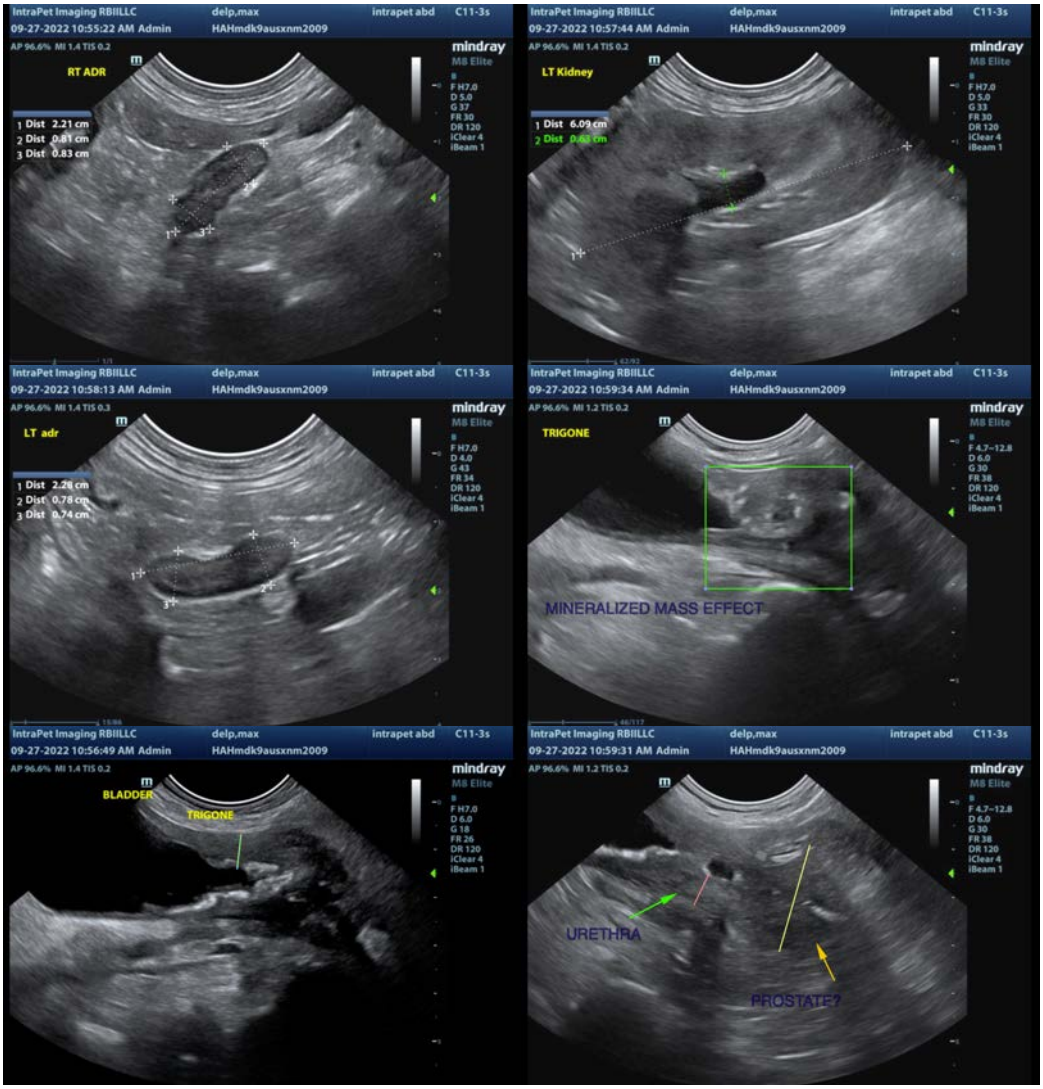
The pyelectasia observed in both kidneys is likely due to increased resistance due to the abnormal tissue in the region fo the trigone and ureteral papilla. If a cytologic diagnosis can be obtained, then recommend consultation with a veterinary oncologist regarding treatment options and prognosis.

There is concern for possible local metastasis to the sublumbar lymph node, although an abnormal reactive lymph node cannot be excluded as a possibility. A fine needle aspirate of this lymph node could be considered as long as extreme caution is taken to avoid any large local vessels in the region.

The cystic lesion in the liver could represent a benign cystic lesion. Unfortunately, the location of this lesion makes sampling challenging. Recommend continued monitoring. If surgical removal is desired, consider a contrast CT scan for surgical planning.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com