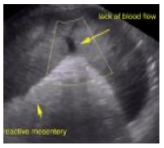
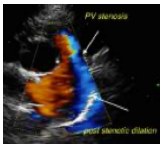
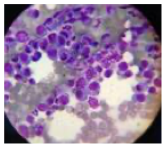
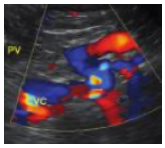
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Riley Struphar

SPECIES

Canine

BREED

Pug Mix

SEX

Neutered Male

AGE

10 years

WEIGHT

28 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Meghan Myers VMD

HOSPITAL NAME

Hershire AH

REFERRING VET

Susan Zhang DVM

INVOICE

14008

DATE

8.9.23

PRESENTING CLINICAL SIGNS

History: Pet was diagnosed at another vet with bladder cancer 2 years ago (!), no treatment, no medications. Pet is urinary incontinent with stranguria and hematuria. Is slightly more lethargic last few weeks. Owner request ultrasound to see if signs of cancer spread outside of the bladder.
Abnormal PE/Chem/CBC/UA Results: bloodwork 1 month ago unremarkable.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is significantly distended with anechoic urine. Much of the bladder wall appears to be of normal thickness, but in the region of the trigone and mid-bladder, there is a large, rounded, slightly multi-loculated hyperechoic mass effect visualized (measuring 6.03 x 4,73 cm). The urethral wall appears thickened (measuring approximately 0.76 cm) with a diameter of 1.49 cm. The urethra thickening appears somewhat diffuse, with no discernable prostatic tissue. No evidence of any calcui is observed.

The left kidney has a normal shape and size (4.77 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. Pinpoint cortical mineralizations are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.00 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. Occasional pinpoint mineralizations are noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is large (0.80 cm at the cranial pole / 1.04 cm at the caudal pole / approximately 1.60 cm in length) and slightly irregular. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that it is large, with a large caudal pole. No evidence of vascular invasion is visualized.

The right adrenal gland is normal in size (0.53 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.

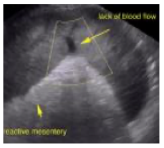
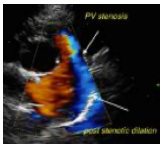
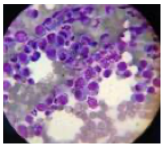
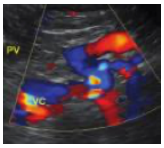
Liver

The liver is subjectively large 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 are occasional ill-defined hypoechoic nodules visualized in the parenchyma (one such nodule visualized measures 1.26 cm in diameter).

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7 cm 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.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Riley Struphar

SPECIES

Canine

BREED

Pug Mix

SEX

Neutered Male

AGE

10 years

WEIGHT

28 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Meghan Myers VMD

HOSPITAL NAME

Hershire AH

REFERRING VET

Susan Zhang DVM

INVOICE

14008

DATE

8.9.23

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 0.50 cm in wall thickness) and the jejunum measured as normal (0.40 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 sublumbar lymph nodes are visualized and are slightly prominent (exampls of which measure 0.42 and 0.47 cm). The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

Findings

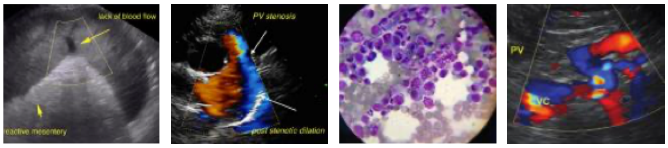
- Large, rounded/multiloculated/cystic mass effect in the mid-caudal urinary bladder, as well as diffuse severe thickening of the urethra +/- prostate. This is a somewhat atypical presentation for transitional cell carcinoma. Differentials include neoplasia, inflammatory disease, etc.
- Large left adrenal gland - The unilateral adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochdromocytoma), hyperplasia, inflammation, other.
- Heterogenous liver with ill-defined hypoechoic nodules - 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 nodules observed trend toward a more benign process, but underlying neoplasia cannot be ruled out.
- Prominent sublumbar lymph nodes - The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a very large mass effect visualized in the caudal and mid-region of the urinary bladder. Although it doesn't have the classic appearance of a transitional cell carcinoma, this would be the primary differential. Further diagnostics would be strongly recommended based on the duration of this process, and its somewhat atypical appearance. The urethra is severely thickened diffusely. The prostate cannot be definitive identified. This could represent generalized inflammation, inflammatory disease, extension of prostatic neoplasia, etc. Consider a fine-needle aspirate of the region of the prostate/thickened urethra. Additionally, a traumatic catheterization to try and obtain cells from either the urethra or the trigonal mass region may be helpful. If not done recently, a urinalysis and culture should be performed.

The left adrenal gland is somewhat atypical and rounded-in-appearance as well as enlarged. These changes could be consistent with focal hyperplasia and adenoma, or less likely an early neoplastic process.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Riley Struphar

SPECIES

Canine

BREED

Pug Mix

SEX

Neutered Male

AGE

10 years

WEIGHT

28 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Meghan Myers VMD

HOSPITAL NAME

Hershire AH

REFERRING VET

Susan Zhang DVM

INVOICE

14008

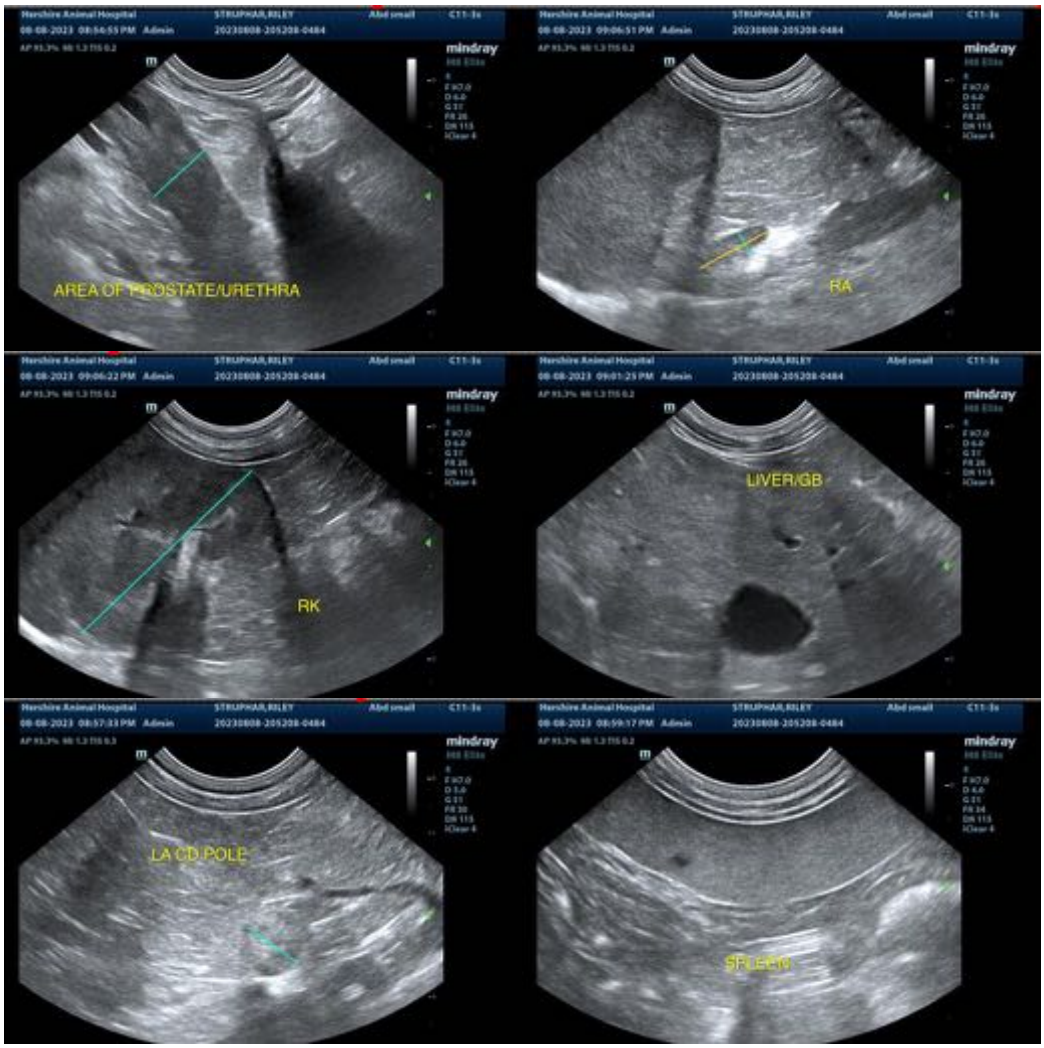
DATE

8.9.23

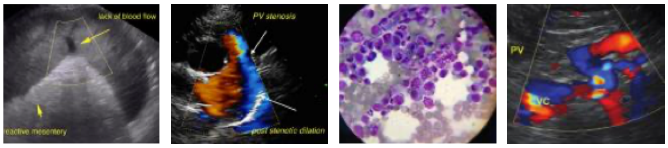
Recommend a blood pressure evaluation if hypertension is present. Consider catecholamine testing. If there are no signs of Cushing's disease present, then I would consider continued monitoring with ultrasound for progression of this lesion. If signs of Cushing's disease are present, you could consider adrenal function testing, with caution interpreting test results due to concurrent medical issues.

The liver is somewhat heterogenous. This is a nonspecific finding. Correlate this with lab-work findings. The hypoechoic nodules are ill-defined and do not have criteria for malignancy, although metastatic disease cannot be definitively ruled out. Recommend continued monitoring.

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



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Riley Struphar

SPECIES

Canine

BREED

Pug Mix

SEX

Neutered Male

AGE

10 years

WEIGHT

28 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Meghan Myers VMD

HOSPITAL NAME

Hershire AH

REFERRING VET

Susan Zhang DVM

INVOICE

14008

DATE

8.9.23

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)
info@SonoPath.com