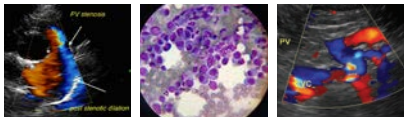
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

3/29/23

PATIENT

Oscar Lalmond

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

7/24/08

WEIGHT

16 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

HOSPITAL NAME

Advanced Vet Complex

REFERRING VET

Dr. Benson

INVOICE

46268

PRESENTING CLINICAL SIGNS

Blood in urine, no stones seen on xray.

Current Medications: Convenia injection given 3/22/23.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately distended with primarily anechoic contents ad some echogenic debris. There is a solitary heterogeneous vascular mass measuring 2.5 cm x 1.5 cm in size along the ventral apical wall. No cystoliths are observed.

The right kidney is large in size (4.94 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Pyelectasia is noted at 0.53 cm in the transverse view. Dilated proximal ureter is appreciated at 0.54 cm. The dilation cannot be traced to an end point.

The left kidney is normal in size (3.85 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Pyelectasia is noted at 0.55 cm in the transverse view. Dilated proximal ureter is appreciated at 0.44 cm. The dilation cannot be traced to an end point.

Adrenal Glands

The right adrenal gland is normal in size (0.41 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.48 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

PRIMARY FINDINGS

- **Urinary bladder mass –** Urinary bladder wall changes are most concerning for infiltrative neoplasia such as transitional cell carcinoma vs other. Benign inflammatory disease (cystitis) cannot be ruled out but is considered less likely given the location and appearance of the tissue.

- **Moderate to marked bilateral pyelectasia –** Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction. Given the concurrent hydroureter, obstruction from the mass would be a probable differential. However, the mass is not in an area that would typically result in hydroureter, and the ureters aren't visualized to be dilated at the level of the urinary bladder. Therefore, other differentials including potentially an ascending infection/pyelonephritis have to be considered.

SECONDARY FINDINGS

- **Mild gallbladder debris** – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

- **Pancreatic age-related remodeling –** Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

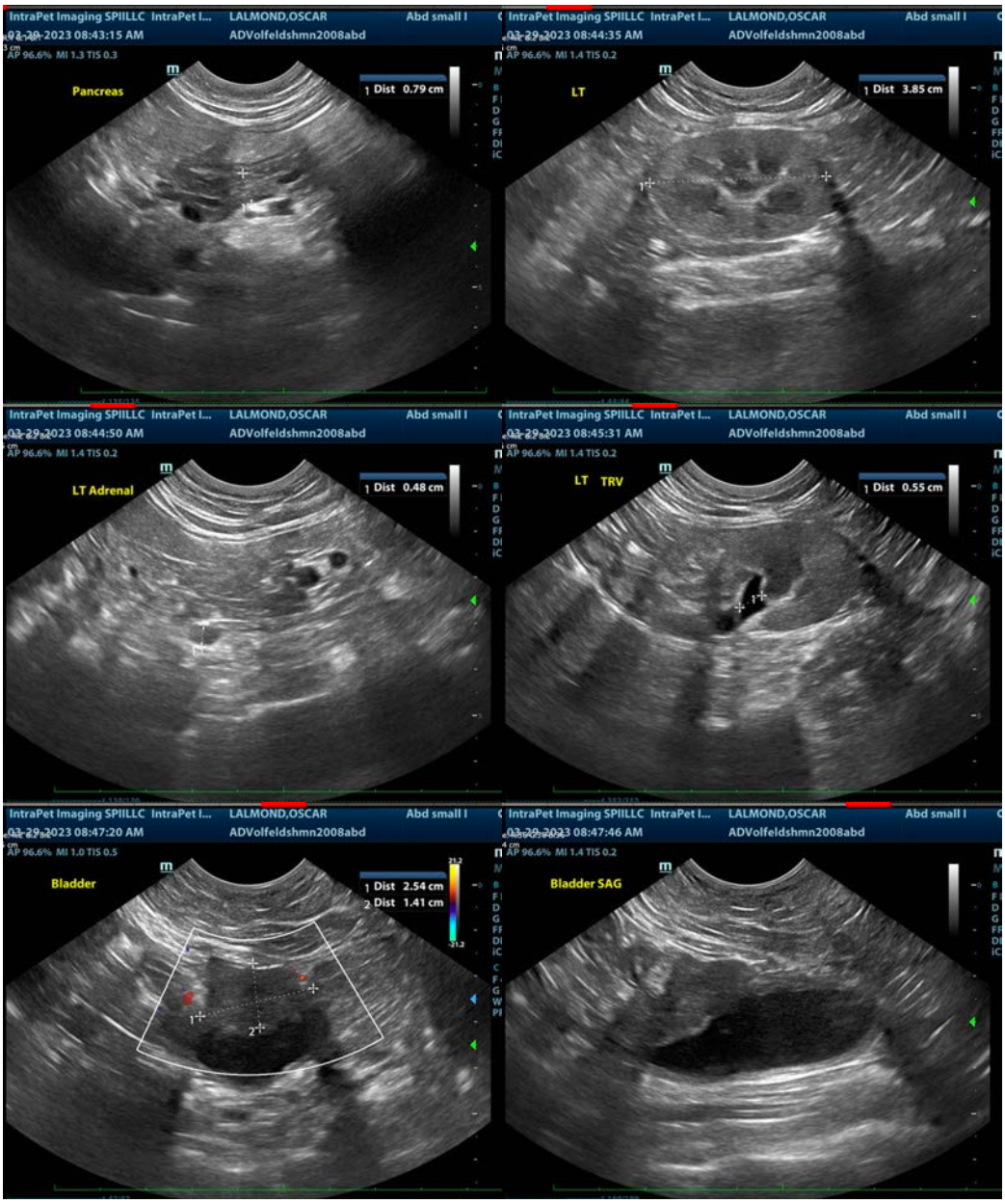
- **Reactive mesenteric lymph nodes –** infiltrative neoplastic disease cannot be ruled out but is considered less likely.

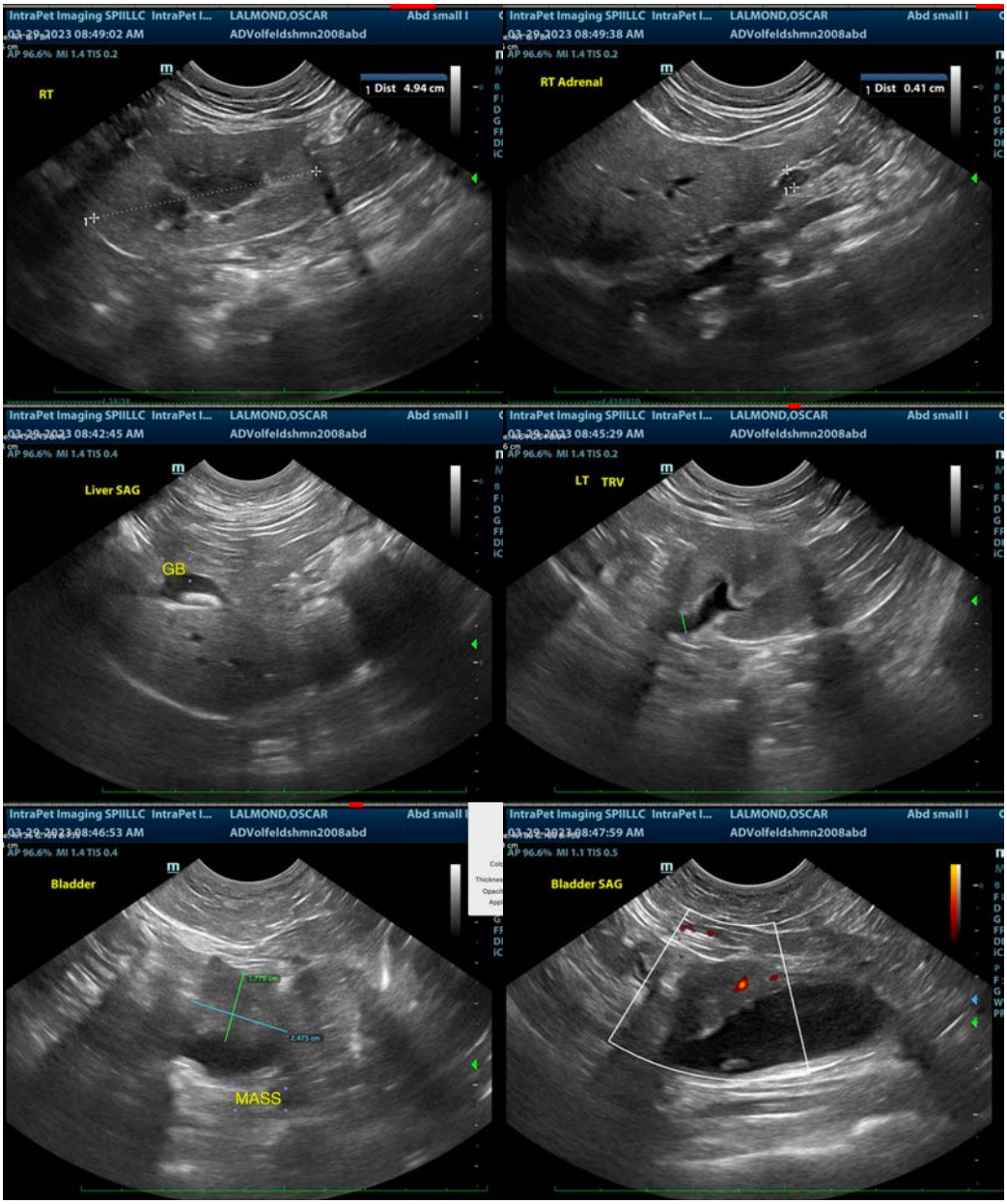
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If not recently evaluated, a general metabolic health screen is recommended, beginning with a CBC/Chem panel, electrolytes, a urinalysis and, if indicated based on urinalysis results, urine culture. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended. If a urine culture is not submitted prior to antibiotics, however, culture should wait to be submitted a week to 10 days after finishing antibiotics to prevent false negatives.

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

A fine needle aspirate of the bladder mass could be considered with small risk of tumor seeding/trailing if patient's coagulation status is appropriate. Alternatively, traumatic catheterization or even cystoscopy could be considered. However, the mass appears to be more transmural, extending out, therefore a luminal approach, while likely sufficient, may not be as effective.

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RT
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Liver SAG
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Bladder
MASS
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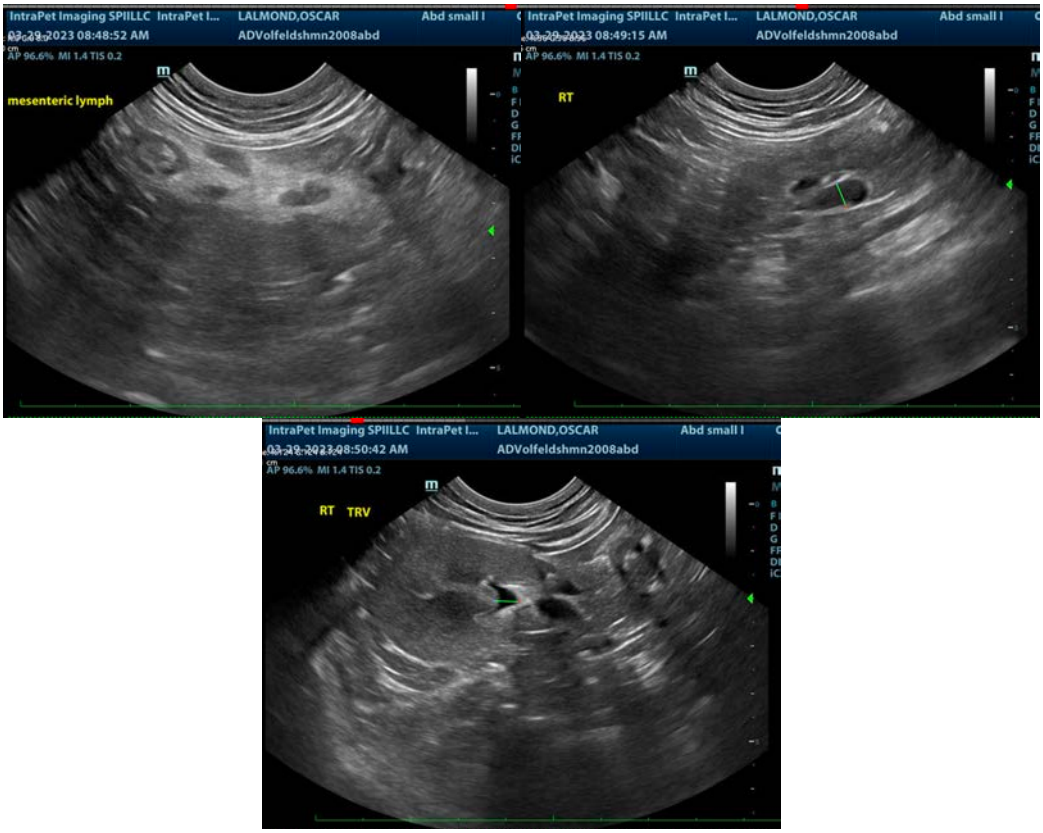
Bladder SAG



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.

Beth Johnson, DVM, DACVIM
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