

**DATE PRESENTING CLINICAL SIGNS**

5/2/23 Azotemia, weight loss, loss of appetite, hypothermia, lethargy.

PATIENT

Mow Mow Richardson

Current Medications: None listed.
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.

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

DSH

SEX

Neutered Male

AGE

10/2/15

WEIGHT

12.3 Pounds

INTERPRETED BY

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

HOSPITAL NAME

AC of Whiteford

REFERRING VET

Dr. Everhart

INVOICE

47029

Urinary System

The urinary bladder is moderately distended with mildly echogenic urine. The Bladder wall is diffusely thickened and irregular, measuring approximately 0.54 cm. No focal mass lesions, but the thickening is atypical. Recommend a urinalysis and culture. While underlying neoplasia is thought less likely, this cannot be excluded as a differential.

The left kidney is hypoechoic and slightly irregular in shape at 4.1 cm with decreased corticomedullary distinction. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.15 cm). It is hypoechoic with decreased corticomedullary distinction. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.33 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 0.54 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 (0.48 cm), 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 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 <0.36cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.30 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 right limb of the pancreas is prominent and hypoechoic as compared to the surrounding isoechoic 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 Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

PRIMARY FINDINGS

- Irregular, thickened urinary bladder wall – Recommend a urinalysis and culture. If urine culture is negative and the significant irregularity persists in a more distended urinary bladder, then consider possible biopsies or bladder wall cytology.
- Bilaterally hypoechoic kidneys with decreased corticomedullary distinction – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Mildly prominent muscularis layer to the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.

SECONDARY FINDINGS

- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

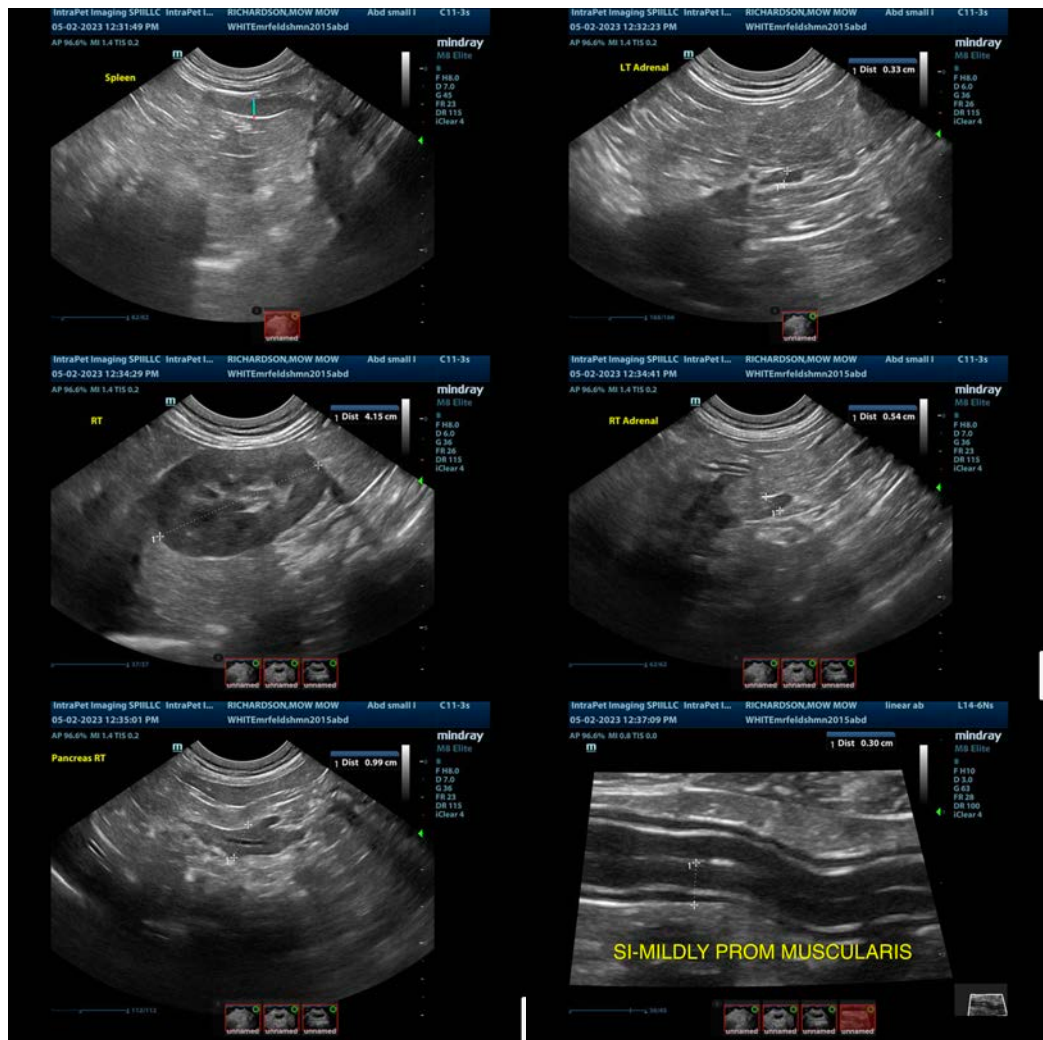
Today's findings are most consistent with primary renal disease. No focal mass lesions or obstructions are visualized. The kidney changes observed are non-specific and can be seen with interstitial fibrosis, infection, inflammation, autoimmune disease, toxicities, and neoplastic causes. The cause of the kidney disease cannot be definitively diagnosed by ultrasound alone. Consider:

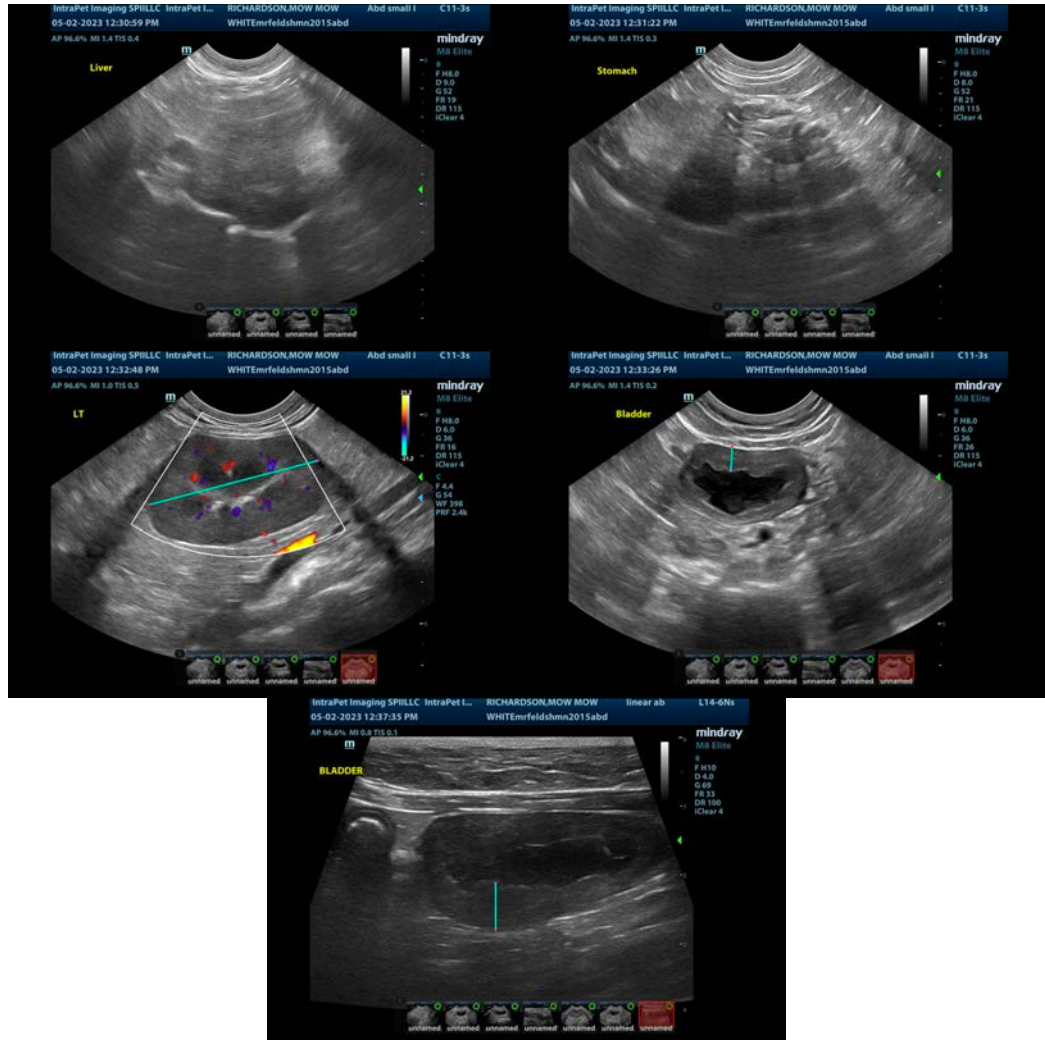
- Close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc..
- Urinalysis/culture to look for underlying infection

- Blood pressure evaluation
- Urine protein:creatinine ratio to look for proteinuria
- FNA likely recommended only if other supportive evidence of neoplasia is present (lymphadenomegally, paraneoplastic hypercalcemia etc..)(normal coags, BP, 25g needle)
- Consider diuresis and symptomatic therapy for GI signs, anorexia, antibiotics while awaiting cultures etc..

The urinary bladder is thickened and irregular. This is likely accentuated by the lack of urine distention. Recommend a urinalysis and culture. If no infection is present, then consider reevaluation of the urinary bladder with more urine distention and possible cytologic evaluation (traumatic catheterization).

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