

**DATE PRESENTING CLINICAL SIGNS**

10/21/21 History: Multiple episodes of hematuria/urinary accidents. Palpable nodule in area of bladder/uterine stump.

PATIENT

Maple Wilkerson

Current Medications: Enrofloxacin 22.7 flavor tabs

Radiographs: no stones seen

Date of Previous IntraPet Ultrasound: No previous

Sedation: not needed

Stat Report: not requested

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

2019

WEIGHT

9.5 Pounds

INTERPRETED BY

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(Small Animal Internal
Medicine)

HOSPITAL NAME

Bayside AMC

REFERRING VET

Dr. Buchanan

INVOICE

13957

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is minimally distended with anechoic urine. The bladder wall appears thickened and mildly irregular in the dependent portion, measuring approximately 0.64 cm. The area of the trigone and urethra (to a depth of 2.0 cm) appear normal. No evidence of cystic calculi or focal masses. Findings are most consistent with cystitis, but underlying neoplasia cannot be ruled out. Lack of urine distention interferes with interpretation of images.

The left kidney has a normal shape and size (3.62 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. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal. There is mild pyelectasia, measuring 0.13 cm.

The right kidney has a normal shape and size (2.5 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. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal. There is mild pyelectasia, measuring 0.11 cm.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.3 cm at the caudal pole (insert other measurements if provided) 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 0.32 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, large, small, normal/large, normal/small) 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. No focal nodules or cystic lesions are observed

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are 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 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 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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 large, 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. The pancreatic duct measures 0.18 cm.

Free Abdomen

There is no evidence of free fluid. There is a mild mesenteric lymphadenopathy particularly in the area of the ileocecal junction with lymph nodes measuring 0.5 cm, 0.33 cm, and 0.43 cm. The omentum is of normal echogenicity.

Other

The uterine stump is visualized with no surrounding inflammation. This is likely normal for this individual.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Thickened dependent wall of urinary bladder- Findings are most consistent with cystitis, but an underlying neoplastic change cannot be ruled out. Lack of urine distention hinders evaluation.
- Prominent hypoechoic pancreas with prominent pancreatic duct- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Mild bilateral pyelectasia- Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. These changes are very subtle.
- Prominent mesenteric lymph nodes- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

Secondary Findings

- Mildly heterogeneous liver- Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Visible uterine stump (possibly prominent?)- There is no surrounding inflammation, so this is likely normal for this individual.

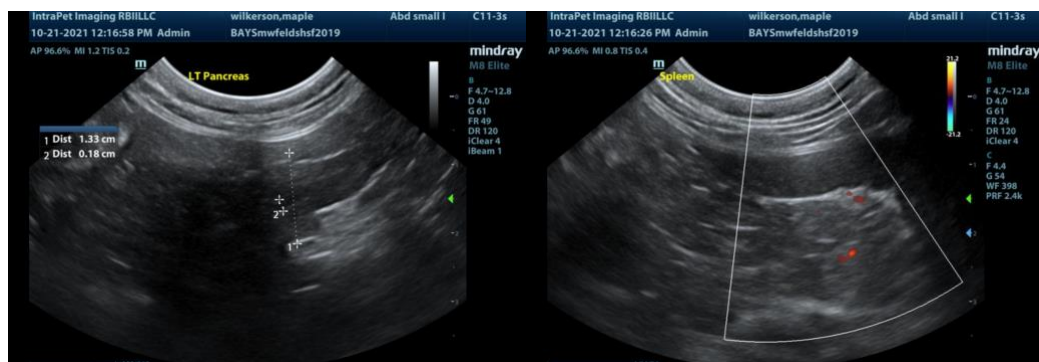
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

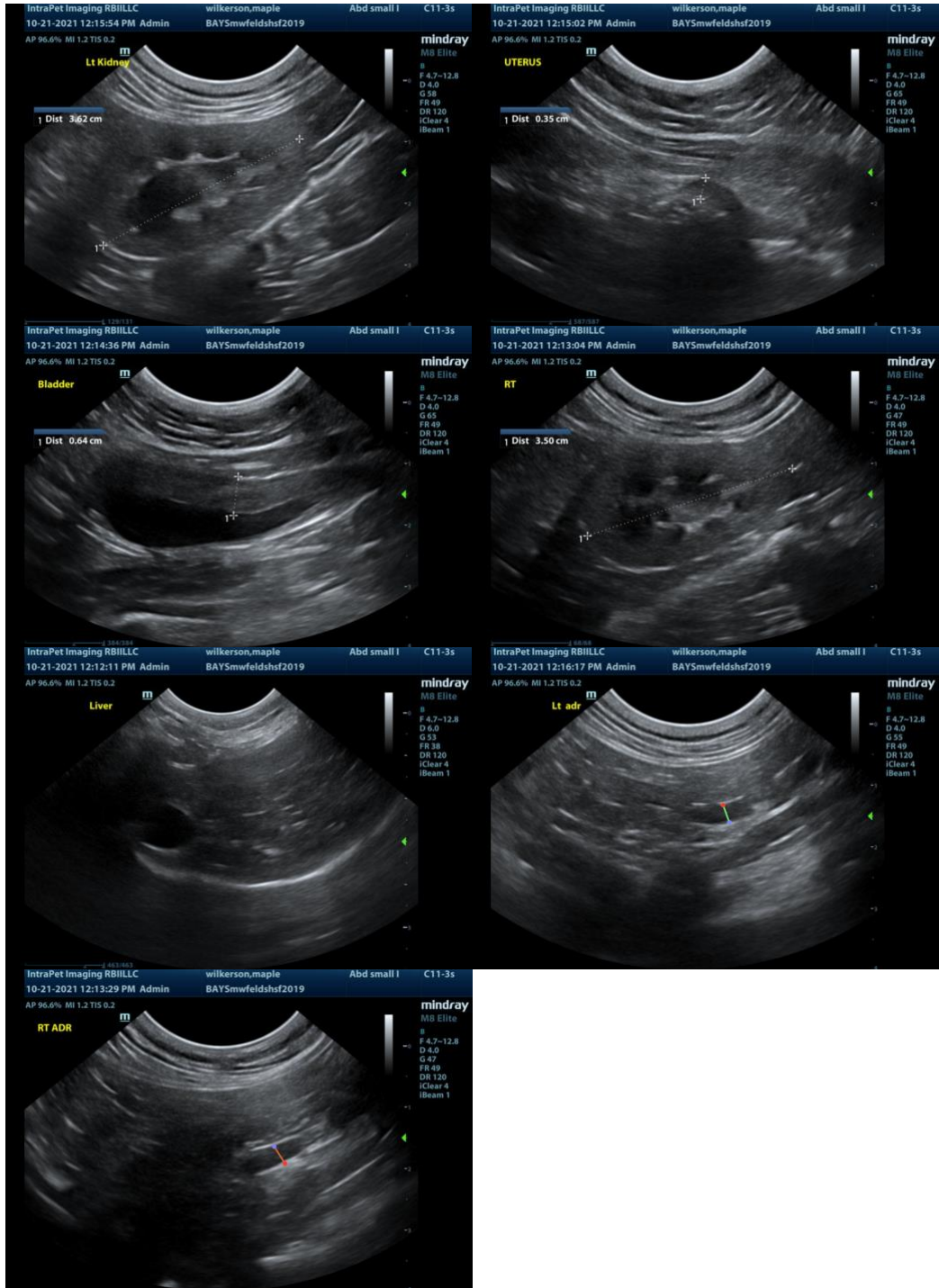
The dependent wall of the urinary bladder appears thickened and irregular, but there is no focal mass effect. Lack of urine distention hinders the evaluation of the urinary bladder and urethra. The changes are most consistent with cystitis (sterile or bacterial).

The wall thickening visualized is diffuse and most consistent with cystitis. No focal lesions were observed.

- Urinalysis and culture are recommended.
- Due to the diffuse nature of the lesion, interstitial cystitis is suspected (if culture is negative)
- Treatment of FIC can be frustrating as it is a waxing and waning disease. Treatment strategies vary and there is no “one fits all” approach. There is currently no cure for FIC. Goals of therapy include reduction of severity and duration of clinical signs during an acute episode; increasing the interval between episodes; and decreasing severity of signs in cats with persistent FIC. Approximately 85% of cats will experience clinical improvement with or without therapy.
- Numerous therapies can be considered including diet, multimodal environmental modification, analgesics, anti-inflammatories, anti-anxiety medications etc.
- Close observation is warranted as some cats do experience life-threatening urinary obstruction.
- If symptoms are worsening re-evaluation with ultrasound should be considered.

Given the lack of clinical signs, the pancreatic findings are likely incidental, and the uterine stump is visible (which could be abnormal) but there is no surrounding inflammation or shadowing, etc. and the thickened urinary bladder wall is on the opposing side, making a correlation between these two structures unlikely.





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.

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