

**DATE PRESENTING CLINICAL SIGNS**

4/26/23

Pet presented on 01/24/23 for blood in the urine. Pet was in the home and something fell near him and owner noticed he urinated bloody urine. Pet was otherwise normal at home, no abnormal litterbox habits etc. Pet was started on Clavamox and Onsior. Recheck UA revealed continued hematuria, no obvious stones noted on radiographs so pet was started on a urinary diet. One month later a recheck UA revealed no improvement in the hematuria. A urine sample was collected at home in case of this being stress related, there was some improvement in the hematuria but still a problem. Abdominal US was elected by owner

PATIENT

Mars Bator

SPECIES

Feline

Current Medications: None.

BREED

DSH

Lab Results: 1/27/23: UA: USG: 1.037; Protein: 4+; Blood: 3+; RBCs: >100/HPF; rare epithelial cells; 2+ ammonium mg phosphate crystals. 2/8/23: Recheck UA: USG: 1.052; Protein 3+; Blood: 3+; WBC: 2-5/HPF; RBC: >100/HPF; Epi cell: 2+; 1+ ammonium mg phosphate crystals. 2/8/23: Radiographs--no evidence of urinary calculi. 4/5/23: UA: USG: 1.049; Protein: 3+; RBC: >100/HPF; rare epi cells; 3+ ammonium mg phosphate crystals. 4/19/23: COLLECTED AT HOME: USG: 1.057; Protein: 3+; WBC: 6-10/HPF; RBC: 50-75/HPF; 2+ epi cells; 3+ ammonium mg phosphate crystals

SEX

Neutered Male

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

AGE

3/8/21

Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**WEIGHT**

11.38 Pounds

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall appears normal with no mucosal irregularities or calculi visualized. The area of the trigone and ureteral papillae appear normal, but there is a tubular structure visualized between the proximal urethra and the colon, which is concerning for an ectopic ureter. The tubular structure measures 0.32 cm in diameter and is most consistent with a left ectopic ureter.

INTERPRETED BY

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

The left kidney has a normal shape and size (3.85 cm). Overall echogenicity is normal with adequate 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Westminster VH

The right kidney has a normal shape and size (3.84 cm). Overall echogenicity is normal with adequate 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

REFERRING VET

Dr. Hall

Adrenal Glands**INVOICE**

46956

The left adrenal gland is normal in size measuring 0.42 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 0.36 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 (1.0 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 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. Jejunum wall measures 0.20 cm. Duodenum wall measures 0.25 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 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

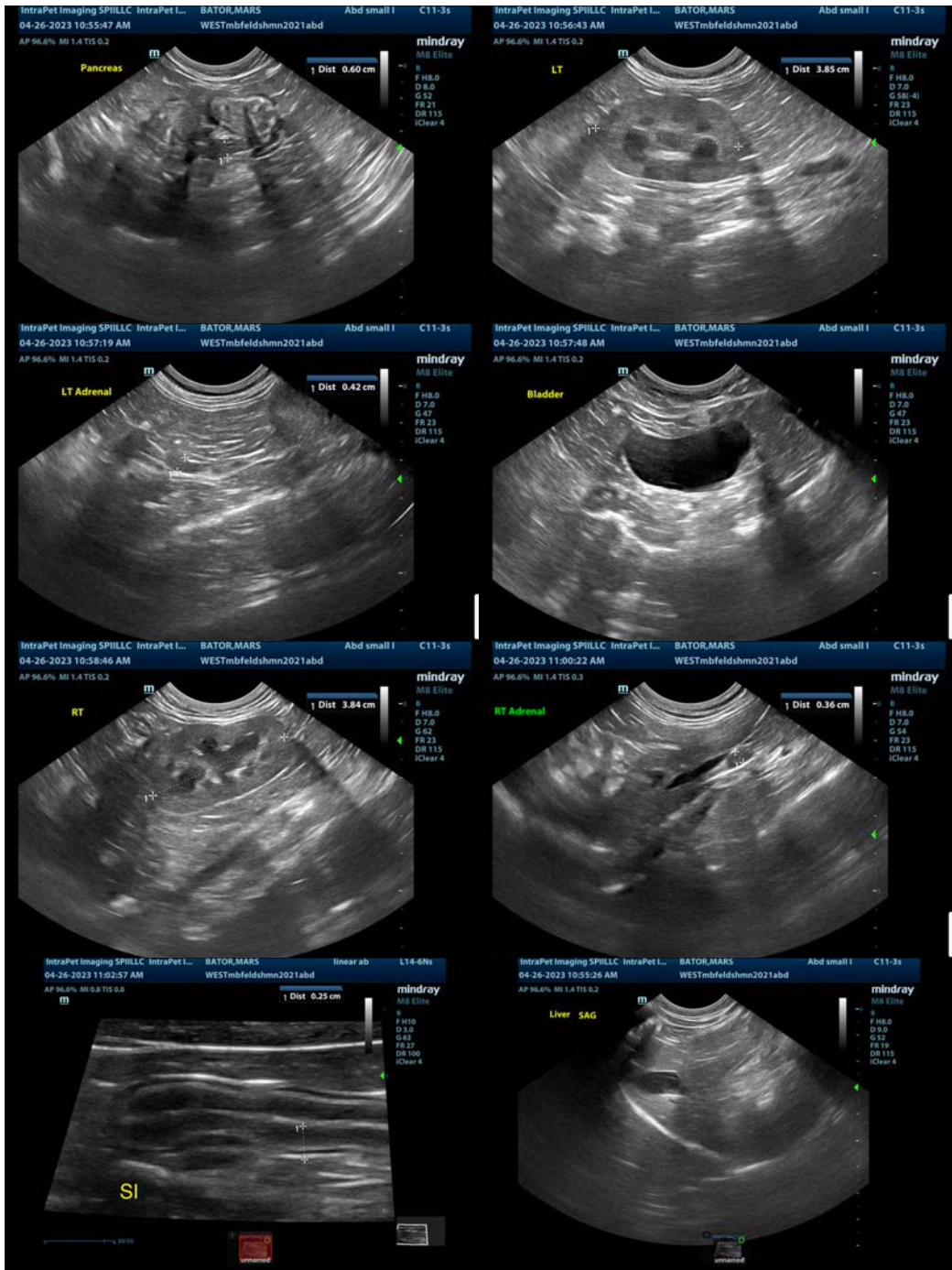
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

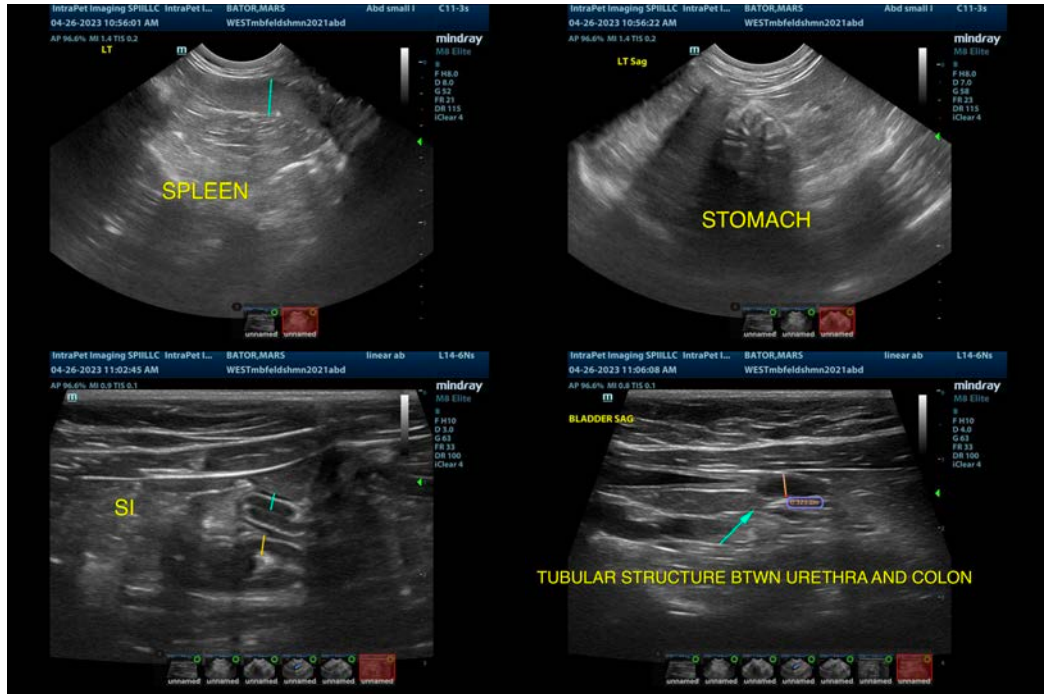
ULTRASONOGRAPHIC FINDINGS

- Tubular structure visualized between the proximal urethra and the colon –this is most consistent with an ectopic ureter-Consider a contrast study
- 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

There is an irregular tubular hypoechoic structure visualized between the proximal urethra and the colon. The appearance and location of this structure is most consistent with an ectopic ureter. Options moving forward would include (optimally) a contrast CT scan to better evaluate this area or referral to a veterinary surgeon for explore/evaluation. If not already done, recommend a urine culture.





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.

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