**DATE**

11/26/21

**PRESENTING CLINICAL SIGNS**

11-25-2021 Notes: referral for elevated kidney enzymes. P has been urinating outside the litter box constantly and ADR and lethargic Crea: 10.5 BUN: >130 K 8.4 HCT:25.7 Neutrophilia

**PATIENT**

Coby Connor

Current Medications: Oral Buprenorphine, Amp/Sulb, Maropitant Citrate, Dextrose.  
Lab Results: Attached.

Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Feline

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**BREED**

Domestic Shorthair

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is moderately distended with anechoic urine. The bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities or masses. At the ureteral papilla the left distal ureter appeared dilated at 0.28 cm with an intraluminal mineralization at the junction of the bladder and ureter. This mineralization measures 0.24 cm. Additionally there is sandy debris.

**SEX**

Male

**AGE**

4/4/21

The left kidney is large in size (4.93 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is severe pyelectasia with renal pelvis measuring 0.69 cm. The left ureter is dilated and distally at the level of the junction of the ureter with the bladder is a ureterolith.

**WEIGHT**

10.3 lbs

The right kidney has a normal shape and size (5.6 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Severe pelvic dilation was noted and measured 0.83 cm. The ureter appears prominent, but I am unable to follow it and no obvious obstruction was noted.

**INTERPRETED BY**

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

**Adrenal Glands**

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

**HOSPITAL NAME**

Animal Emergency  
Hospital

**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.

**REFERRING VET**

Dr. Roper

**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 gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The common bile duct is visualized and prominent at 0.43 cm, but no obstruction is noted.

**INVOICE**

### ***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 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 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**

### **PRIMARY FINDINGS:**

- Bilateral hydronephrosis with left-sided hydroureter and a left-sided ureteral stone.
- Sandy debris in the dependent portion of the urinary bladder.

### **SECONDARY FINDINGS:**

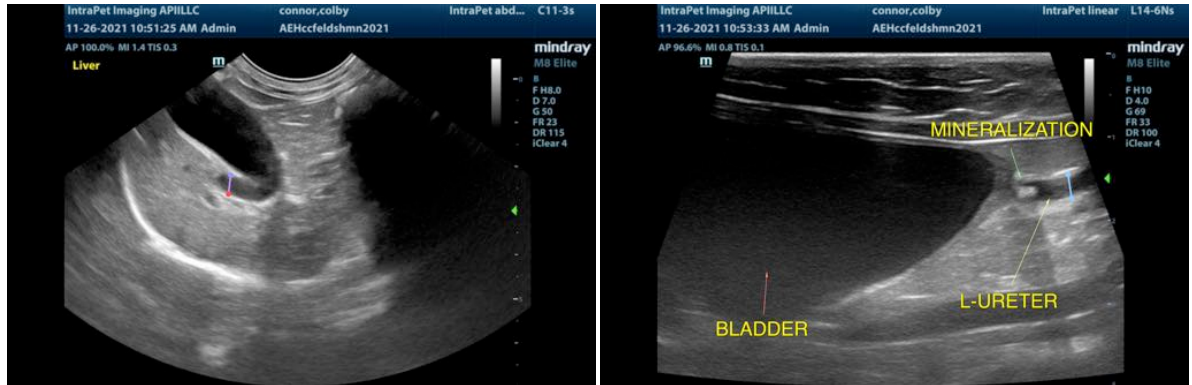
- Prominent bile duct. No obstruction is noted.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is bilateral hydronephrosis and evidence of left-sided ureteral obstruction/partial obstruction. Additionally there is sandy debris in the bladder. It is possible that this cat has been passing stones and/or has pyelonephritis. I recommend urine culture, urinalysis, blood pressure evaluation, diuresis and close monitoring. If the urine is sterile I would consider bilateral ureteral bypass. If an obstruction is evident contrast CT may be necessary to identify small stones or strictures.

It is somewhat unusual for a pet this young to have these issues. Consider either chronic urinary tract infections, also consider bile acid evaluations as a portosystemic shunt could be another differential for juvenile urolithiasis.





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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