

**DATE PRESENTING CLINICAL SIGNS**

8/16/22 Recurrent UTI signs, primarily inappropriate urination. Decreased appetite.

**PATIENT** Current Medications: None listed.

Freya Baker

Lab Results: Azotemia (CREA 2.5, BUN 38, SDMA 16) and elevated ALT (234).

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**SPECIES**

Feline

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

DLH

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, masses or cystic calculi.

**SEX**

Spayed Female

The left kidney is borderline small in size (2.02 cm) and irregular in shape with mild pyelectasia at 0.24 cm. Overall echogenicity is hyperechoic with poor 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.

**AGE**

3/16/06

The right kidney is normal in size (3.5 cm), but irregular in shape with a non-obstructive nephrolith noted measuring 0.33 cm and mild pyelectasia of 0.11 cm. Overall echogenicity is hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

5.8 Pounds

**Adrenal Glands****INTERPRETED BY**

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

The left adrenal gland is normal in size measuring 0.35 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 0.34 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.

**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

**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.

**HOSPITAL NAME**

Greenbrier Vet Clinic

**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.

**REFERRING VET**

Dr. Danneberger

**INVOICE**

40494

The gallbladder 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. Jejunum wall measured 0.26 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 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.

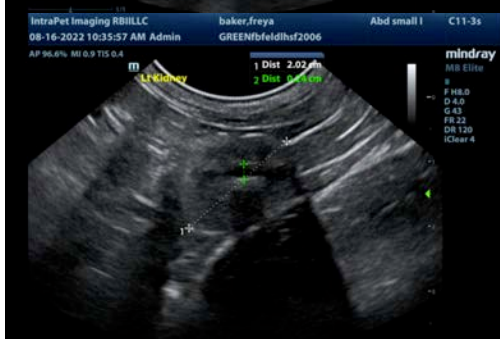
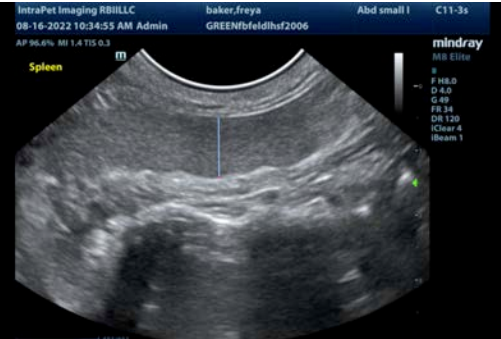
## **ULTRASONOGRAPHIC FINDINGS**

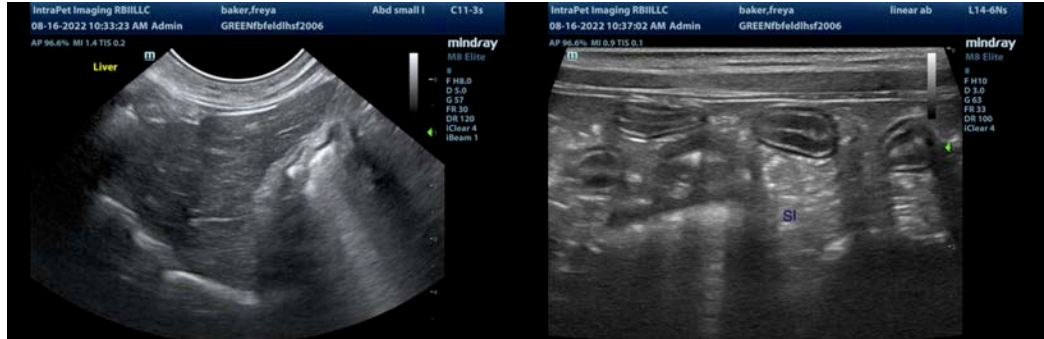
- Irregular, borderline small (left kidney) hyperechoic kidneys with loss of corticomedullary distinction, a right-sided nephrolith, and mild pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

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

The changes observed are consistent with chronic progressive renal disease with non-obstructive nephroliths visualized in the right kidney, as well as mild bilateral pyelectasia and irregularity that could be consistent with previous infarcts. Recommend blood pressure, urinalysis and culture +/- urine protein to creatinine ratio.

An obvious cause for the recurrent urinary tract infections is not identified, but this could be exacerbated by lack of concentrating ability(?). If significant azotemia is not present to explain the clinical signs reported, then consider the possibility of concurrent GI disease, as this can sometimes have minimal ultrasonographic lesions. In this situation you could consider a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate to see if there is further evidence of underlying gastrointestinal disease.





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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