



**PATIENT**

Chase the Cat  
Leinheiser

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

7

**WEIGHT**

7.9 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Saum Hadi

**HOSPITAL NAME**

Bethany Family PC

**REFERRING VET**

Dr. Saum Hadi

**INVOICE**

45902

**DATE**

3/15/23

**PRESENTING CLINICAL SIGNS**

P presents for hyporexia and vomiting. P has a history of pyelonephritis, treated in late July/early August with a complete response. Lab work from today that includes prior results attached. On exam, P was QAR. A large, firm, painful structure was palpated in the cranial/mid abdomen. Radiographs revealed a markedly enlarged L kidney with possible nephrolithiasis. Chem/lytes (attached) showed a marked azotemia. CBC (not attached) was unremarkable. UA + culture pending.

Abnormal PE/Chem/CBC/UA Results: See attached. Marked azotemia. BUN dilution was run following these results, and it was 170 mg/dL.

**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, masses or cystic calculi.

The left kidney is large, measuring 5.15 cm with decreased corticomedullary distinction. There is significant pyelectasia evident measuring 0.74 cm, and a focal mineralization/nephrolith visualized in the renal pelvis measuring 0.60 cm, possibly associated with an obstructive process. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.14 cm) with pyelectasia at 0.21 cm and occasional pinpoint non-obstructive nephroliths. Overall echogenicity is slightly hyperechoic with poor 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 infarcts or hydroureter. Renal vasculature is normal.

**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 is visualized.

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 is visualized.

**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 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, but it is somewhat septate with a partial division within the gallbladder. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.



**PATIENT**

Chase the Cat  
Leinheiser

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

7

**WEIGHT**

7.9 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Dr. Saum Hadi

**HOSPITAL NAME**

Bethany Family PC

**REFERRING VET**

Dr. Saum Hadi

**INVOICE**

45902

**DATE**

3/15/23

**Gastrointestinal**

The stomach contains moderate fluid. 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**

There is scant free abdominal fluid around the left kidney. No lymphadenopathy. The omentum is severely hyperechoic surrounding the left kidney.

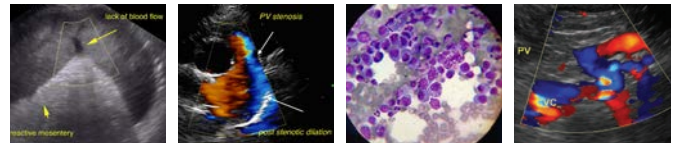
There are two hard shadowing structures in the caudal abdomen. I cannot associate these easily with the GI tract or the urinary tract, although this cannot be ruled out. If these are truly isolated mineralizations, these could be consistent with bates bodies. Correlate with abdominal radiographs. One measures approximately 1.0 cm in diameter, the other measures 0.75 cm.

**PRIMARY FINDINGS**

- Swollen, inflamed, mildly hydronephrotic left kidney with a suspected obstructive nephrolith – The nephrolith associated with the renal pelvis could be partially obstructive. Additionally, some of these changes could be due to pyelonephritis.
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. The changes in the left kidney are concerning for an obstructive process. No obstruction is noted in the right kidney. Pyelectasia is likely secondary to previous or current pyelonephritis.
- Moderate fluid/ingesta visualized within the gastric lumen – Findings could be consistent with a non-fasted patient. If the patient is adequately fasted, consider such differentials as delayed gastric emptying or a partial outflow tract obstruction (none observed).

**SECONDARY FINDINGS**

- Septate gallbladder – This is likely an incidental finding.
- Hard shadowing structures in the caudal abdomen – Correlate with abdominal radiographs. I suspect these could be bates bodies. Other differentials would include stool, ureteral stones, etc.



**PATIENT**

Chase the Cat  
Leinheiser

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

7

**WEIGHT**

7.9 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Saum Hadi

**HOSPITAL NAME**

Bethany Family PC

**REFERRING VET**

Dr. Saum Hadi

**INVOICE**

45902

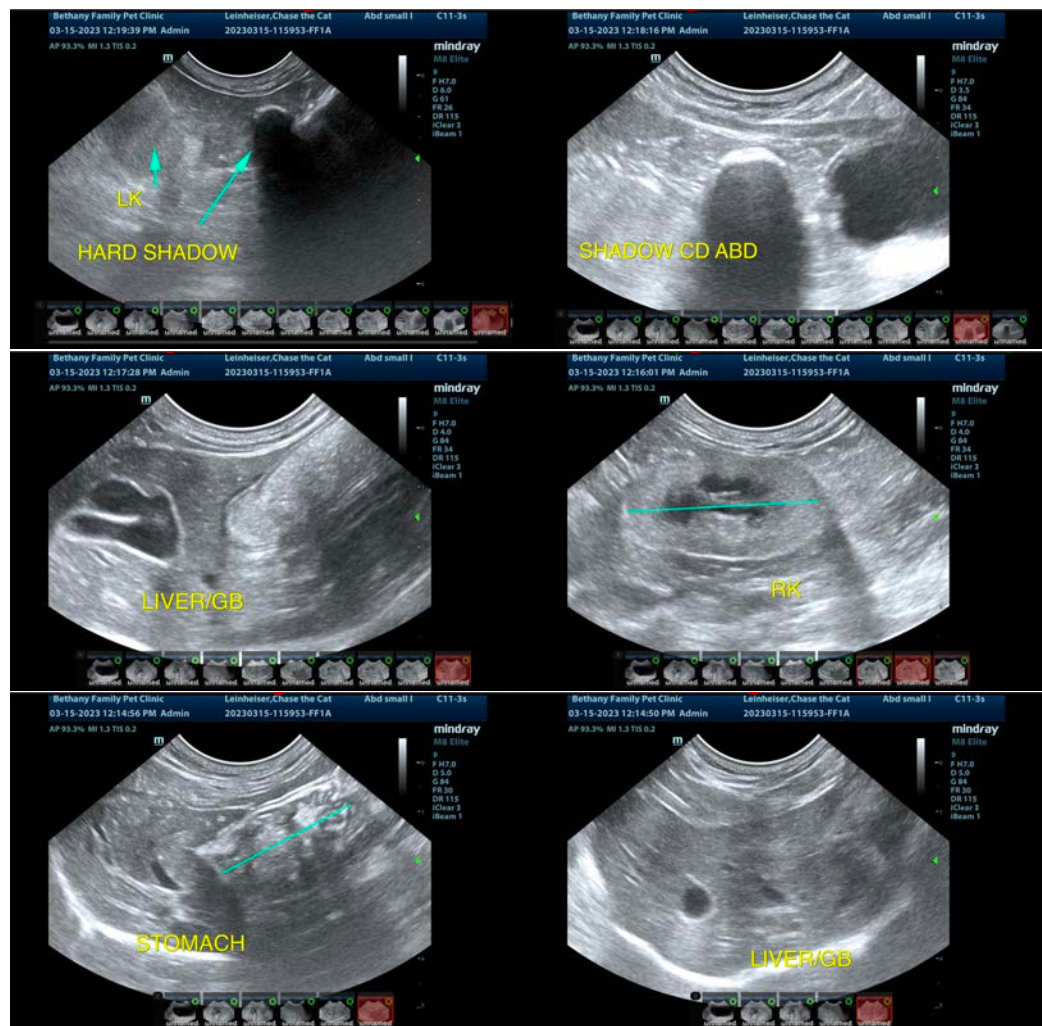
**DATE**

3/15/23

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The left kidney appears swollen and large and is surrounded by inflamed tissue. The renal pelvis is significantly dilated, consistent with early hydronephrosis, and there is a mineralization in the region of the outflow tract/proximal ureter. It is unknown if this is an acute obstruction, a partial obstruction, etc., and/or if there is associated pyelonephritis.

Recommend urinalysis and culture, screening for pyelonephritis, and initiate IV antibiotics. Additionally, recommend abdominal radiographs, looking for any evidence of stones/mineralizations along the path of the ureters. Recommend diuresis and pain medications and close monitoring with serial ultrasound or possibly even a contrast CT scan/IVP, etc. (once rehydrated) to try and determine if the obstruction is complete or if the stone may pass. If the patient appears completely obstructed, some form of bypass or surgery may be necessary.





**PATIENT**

Chase the Cat  
Leinheiser

**SPECIES**

Feline

**BREED**

DSH

**SEX**

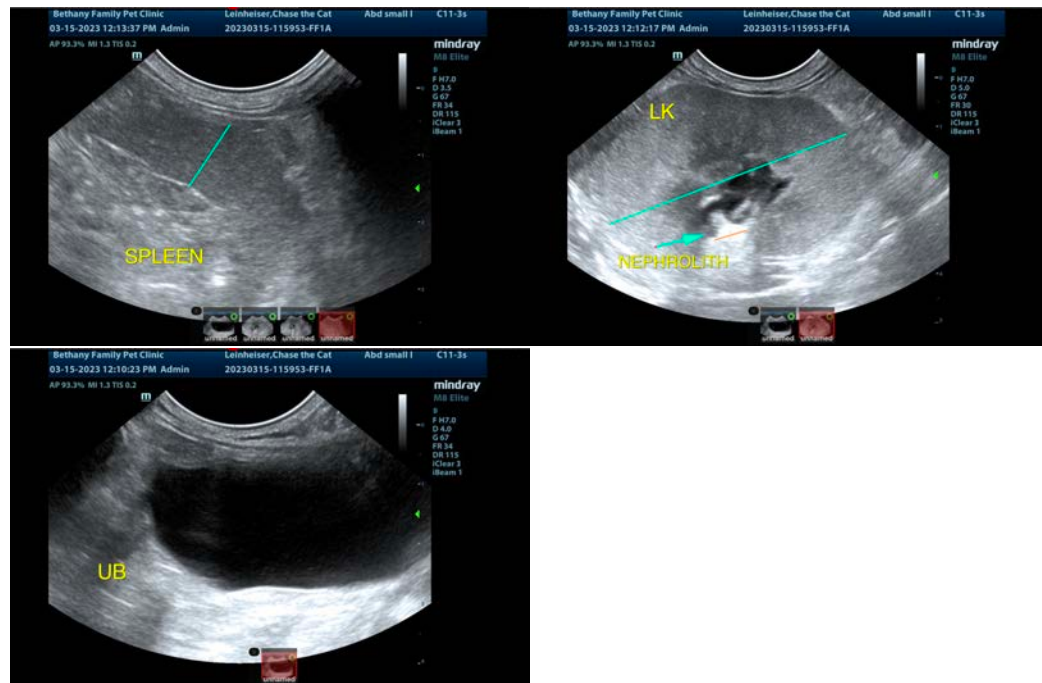
Neutered Male

**AGE**

7

**WEIGHT**

7.9 Pounds



**INTERPRETED BY**

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

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.

**IMAGING PERFORMED BY**

Dr. Saum Hadi

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

kathleen.sennello@sonopath.com

**HOSPITAL NAME**

Bethany Family PC

**REFERRING VET**

Dr. Saum Hadi

**INVOICE**

45902

**DATE**

3/15/23