



**PATIENT**

Chase Leinheiser

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

8.1 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Karen Fowler

**HOSPITAL NAME**

Bethany Family PC

**REFERRING VET**

Dr. Kierra Hanrahan

**INVOICE**

16602

**DATE**

7/30/22

**PRESENTING CLINICAL SIGNS**

History: P presented 7/29 for inappetence and vomiting. Xrays showed enlarged kidneys. P is calicivirus positive. On IVF 2.5x maintenance continually for 24 hours.

Abnormal PE/Chem/CBC/UA Results: 7/29 AM CREA 7.1 BUN 108 PHOS 9.3 ALT 199 7/30 AM CREA 5.3 BUN 102 PHOS 8.1 ALT 133 K 3.4

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are bilaterally uniformly enlarged/swollen (left kidney measures 5.8 cm, right kidney measures 4.4 cm) with an overall hyperechoic echogenicity and slight loss of corticomedullary definition. Normal smooth peripheral margination and shape are maintained. The renal pelvis is dilated with anechoic fluid and hyperechoic thickened pelvic fat. No overt evidence of neoplasia is observed. No mineral observed on the right side. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted in the left kidney. The perinephric area is enhanced by hyperechoic fat and mesentery.

**Adrenal Glands**

The adrenal glands are unable to be well visualized in these images.

**Spleen**

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



<b>PATIENT</b>	The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.
Chase Leinheiser	
<b>SPECIES</b>	The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.
Feline	<b>Pancreas</b>
<b>BREED</b>	The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.
DSH	<b>Free Abdomen</b>
<b>SEX</b>	There is a small amount of anechoic free fluid in the cranial abdomen between the liver lobes. There is no apparent lymphadenopathy in these images.
Neutered Male	
<b>AGE</b>	
7 Years	<ul style="list-style-type: none"> <li>Pyelonephritis – These changes are most consistent with chronic pyelonephritis. Chronic scarring and fibrosis and/or chronic nephrolith passage can also result in these pelvic dilation changes. Early infiltrative disease cannot be ruled out but is considered less likely.</li> </ul>
<b>WEIGHT</b>	<ul style="list-style-type: none"> <li>Urinary bladder debris</li> <li>A small amount of anechoic free fluid noted in the cranial abdomen</li> </ul>
8.1 Pounds	
<b>INTERPRETED BY</b>	<b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>
Beth Johnson, DVM DACVIM	Based on the appearance of the kidneys, an acute process or potentially acute on chronic process, as can be seen with infectious disease, likely pyelonephritis, other infectious disease, toxic insult are considered top differentials. Given the large size of the left kidney, infiltrative disease, such as lymphoma is possible but considered less likely. Recommendations include:
<b>IMAGING PERFORMED BY</b>	Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.
Karen Fowler	
<b>HOSPITAL NAME</b>	A blood pressure is recommended if not recently evaluated.
Bethany Family PC	If broad spectrum antibiotics are not currently part of the treatment plan, they are recommended.
<b>REFERRING VET</b>	Given the small amount of free fluid in the abdomen, fluid overload investigation is recommended by evaluation of patients weight versus urine production, respiratory signs, sounds, etc.
Dr. Kierra Hanrahan	
<b>INVOICE</b>	This patient is reportedly responding to diuresis and if additional fluids can be tolerated, they are recommended. If not, given the suspicion for acute disease, dialysis may be a consideration/possibility.
16602	Finally, potassium support is recommended, given the reportedly mildly low potassium.
<b>DATE</b>	A fine needle aspirate of the left kidney could be considered, if patients coagulation status is appropriate, however, lymphoma is again considered lower on the differential list.
7/30/22	



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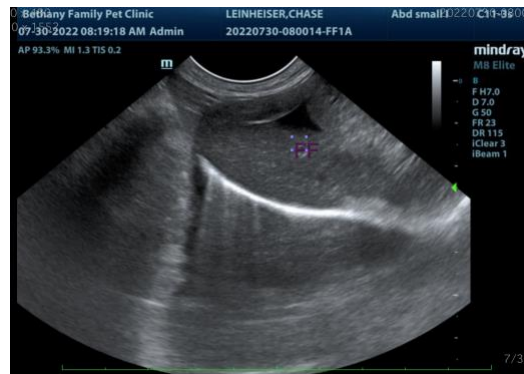
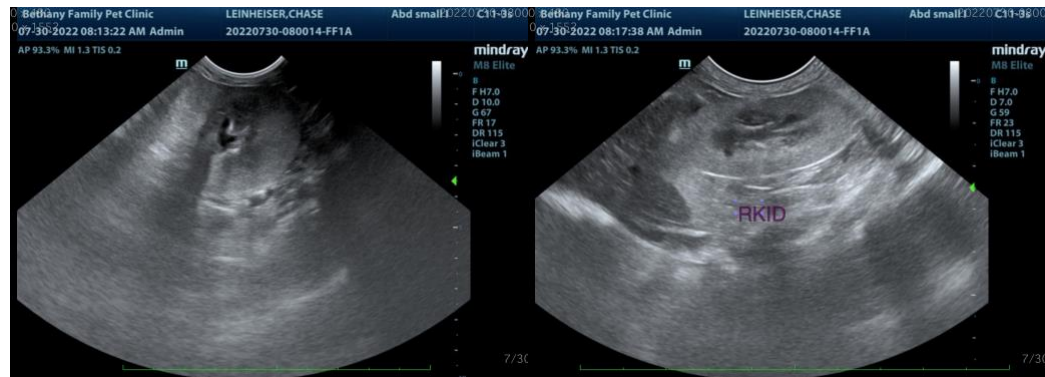
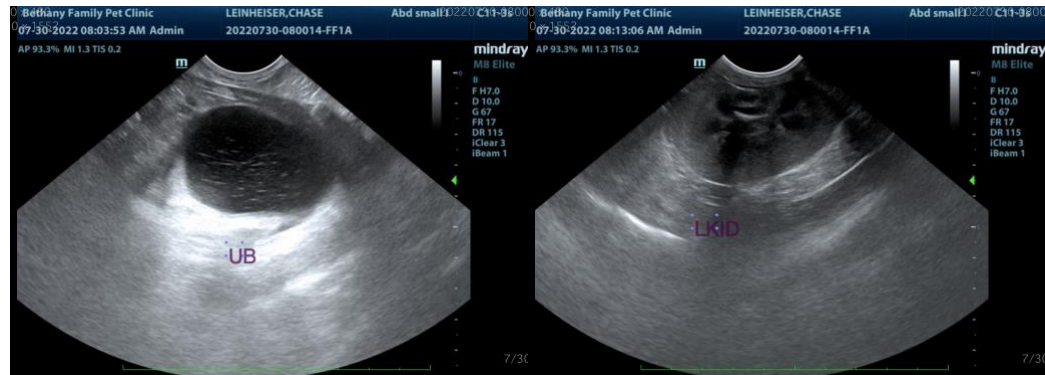
Dr. Kierra Hanrahan

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**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.

**Beth Johnson, DVM DACVIM**

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