



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Zeus Martin

SPECIES Feline

BREED Domestic Shorthair

SEX Neutered male

AGE 12 ½ years

WEIGHT 12.6 lbs

INTERPRETED BY Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY Dr. Todd

HOSPITAL NAME Lambs Gap AH

REFERRING VET Dr. Todd

INVOICE 95645

DATE 1/31/22

Zeus is a twelve year old, MN, DSH cat with a history of persistent hematuria beginning 12/13/21. He was presented 12/13/21 for vomiting, anorexia, lethargy and visible hematuria. No stranguria was noted by owner. Cystocentesis showed hematuria and bacteriuria(rods). Enrofloxacin, gabapentin, cosequin were prescribed. Recheck urine (free-catch) on 1/20/22 showed no bacteriuria, but persistent hematuria. Bloodwork results see below. + Murphy sign at position 6

Abnormal PE/Chem/CBC/UA Results: 1/21/22: Neuts=2499, platelets clumped, creat-1.4 wnl, rest of chem wnl, T4 normal 1/31/22: CBC =mild decreased neuts (2280) UA=shows rbcs tntc, possible bacteria (urine culture pending)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. The right kidney measured 4.97 cm. The left kidney revealed pyelectasia, echogenic debris and cortical infarcts. Cortical nodules likely secondary to infarct was also noted. Pinpoint mineralization was noted. Active inflammation was noted around the renal infarcts in the left kidney. The left kidney was subnormal in size and measured 3.0 cm. Blood flow was minimal to the left kidney.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.4 cm.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.



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Liver

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The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

BREED

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Gastrointestinal

SEX

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Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

AGE

12 ½ years

Pancreas

WEIGHT

12.6 lbs

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

ULTRASONOGRAPHIC FINDINGS

Subacute on chronic nephritis, dystrophy, pyelonephritis pattern in the left kidney with infarcts and hyperplastic nodular changes. Unlikely to be neoplastic. However, smoldering pyelonephritis is likely.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Left renal function is likely an issue. An argument could be made for left nephrectomy in this patient as embedded infection will likely be a chronic issue. Passage of calculi has likely been in this patient's history. 72-hour IV fluid protocol, urine culture and sensitivity could be considered. Pyelocentesis of the left kidney with culture could be considered as well. However, direct left nephrectomy is recommended to remove embedded infection and cause of discomfort would be appropriate. I doubt that there is any evidence of neoplasia. The right renal changes appear minor and subjectively should be able to maintain metabolic need.

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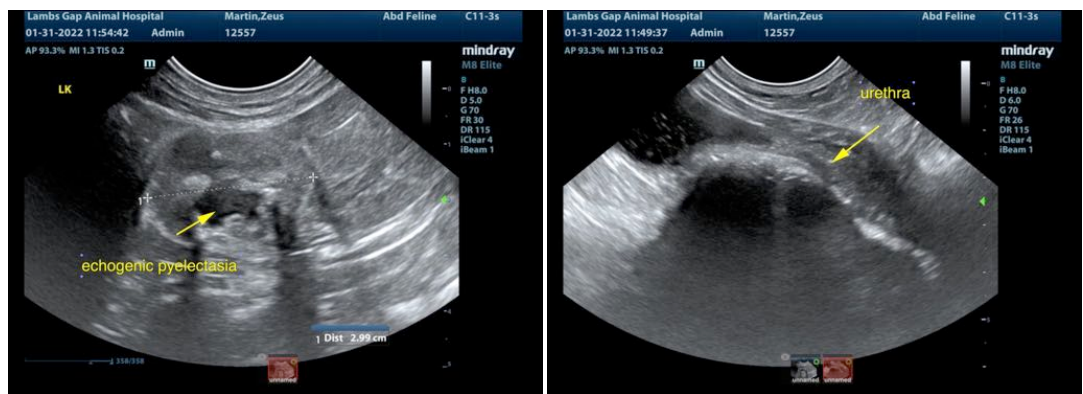
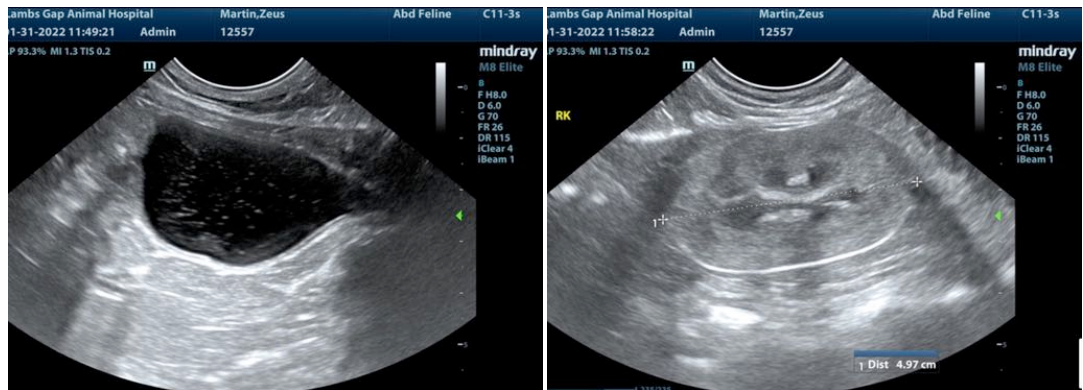
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com



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info@SonoPath.com

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