



**PATIENT**

Holly Connell

**SPECIES**

Canine

**BREED**

Yorkie

**SEX**

Spayed Female

**AGE**

11 Years

**WEIGHT**

11.4 lbs

**INTERPRETED BY**

Greg Kuhlman, DVM,  
 DACVIM (SAIM)

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Park Ridge Animal  
 Hospital

**REFERRING VET**

Dr. Castro

**INVOICE**

75307

**DATE**

5/20/26

**PRESENTING CLINICAL SIGNS**

Hepatomegaly, cholelithiasis, painful abd. enlarged and firm. O reported diarrhea lethargy but eating well. Panting excessively at times.

Abnormal PE/Chem/CBC/UA Results: CA-12 chlo-105 TP-8.5 alb-4.1 glob-4.4 alt-2477 alp-272 ggt-25 chol-348

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The bladder is moderately distended with anechoic urine. There is a urolith present within the bladder. The urolith is hyperechoic, causing mild shadowing, measuring 3.0 mm in width. The bladder wall is normal in appearance and thickness. No masses are seen.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient.

There is a benign cortical cyst in the left kidney at the cranioventral aspect measuring 6.3 mm in diameter. The left renal pelvis is very mildly dilated at approximately 2.2 mm in width. No obstructive disease process seen. Left kidney measures 4.1 cm.

Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted in the right kidney. Two nephroliths are present in the renal pelvis of the right kidney that measure approximately 1.0 mm in diameter each. The right renal pelvis is very mildly dilated at approximately 0.70 mm. The right kidney measures 4.0 cm.

**Adrenal Glands**

The right adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 5.8 mm and the caudal pole measures 7.3 mm.

The left adrenal gland presents normal shape and homogenous parenchyma. The phrenic vasculature is unremarkable. The cranial pole measures 5.2 mm and the caudal pole measures 5.1 mm.

**Spleen**

The spleen is normal in size, shape, margination and echogenicity. No masses are seen.

**Liver**

Liver is relatively normal in size and contour. Parenchyma is mildly heterogenous and coarse with mild likely age-related parenchymal remodeling noted. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The patient appears to have a bilobed gallbladder, which is unusual for a canine but is not indicative of any significant pathology. There is a mild amount of hyperechoic debris adhered to the luminal margin of the gallbladder wall. There is no surrounding free fluid or inflammation. No evidence of mucocele seen. The gallbladder does not currently appear obstructed. No choleliths currently seen.



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***Gastrointestinal***

The visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. If patient was appropriately fasted, delayed gastric emptying could be considered. Non-shadowing foreign material is considered less likely but cannot be definitively ruled out.

If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

The small intestines have normal wall layering and thickness. The small intestines are moderately diffusely distended with ingesta. No mechanical obstructive seen. Colon contains normal contents with normal wall thickness.

***Pancreas***

The visible pancreas is normal in size with normal echogenic parenchyma and surrounded by normal peri-pancreatic mesentery.

***Free Abdomen***

There are no enlarged abdominal lymph nodes seen on this exam. No free abdominal fluid is seen.

**ULTRASONOGRAPHIC FINDINGS**

- Urinary bladder urolith.
- Age related renal changes with mild pelvic dilation and nephrolithiasis.
- Age related hepatic changes.
- Bilobed gallbladder with gallbladder debris.
- Ingesta in stomach and small intestines.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

At this time, the nephroliths do not appear to be obstructing the kidneys. Continued monitoring via lab work and reimaging via ultrasound every 3-6 months is recommended to monitor for possible renal obstruction. The mild renal pelvic dilation may be normal variation or may indicate PU/PD causing the dilation or could possibly be a result of pyelonephritis. If not already performed, recommend urine culture be performed to rule out pyelonephritis.

Regarding the urolith, recommend starting a dissolution diet if not already implemented and reimaging in one month to determine if the urolith has resolved. If it remains present, consider cystotomy, submitting urolith to the University of Minnesota Urolith Lab for analysis and treatment recommendations.

No obvious cause for the patient's lethargy or decreased appetite seen on this exam. Also no obvious cause for the patient's significantly elevated liver values seen on this exam. Given the appearance of the liver and the elevated ALT, there is potential concern for possible infiltrative hepatic disease such as lymphoma or mast cell disease. Recommend ultrasound guided fine needle aspirate of the liver to rule these diseases out. It is also possible the patient has an occult bacterial cholangitis as a cause of the elevated liver values. Recommend aspirating the gallbladder via ultrasound guidance to obtain bile sample and submit bile for aerobic and anaerobic bacterial culture and for cytology. If owner's elect not to pursue this procedure, treat empirically with Ursodiol and an antibiotic such as Amoxicillin for 6-8



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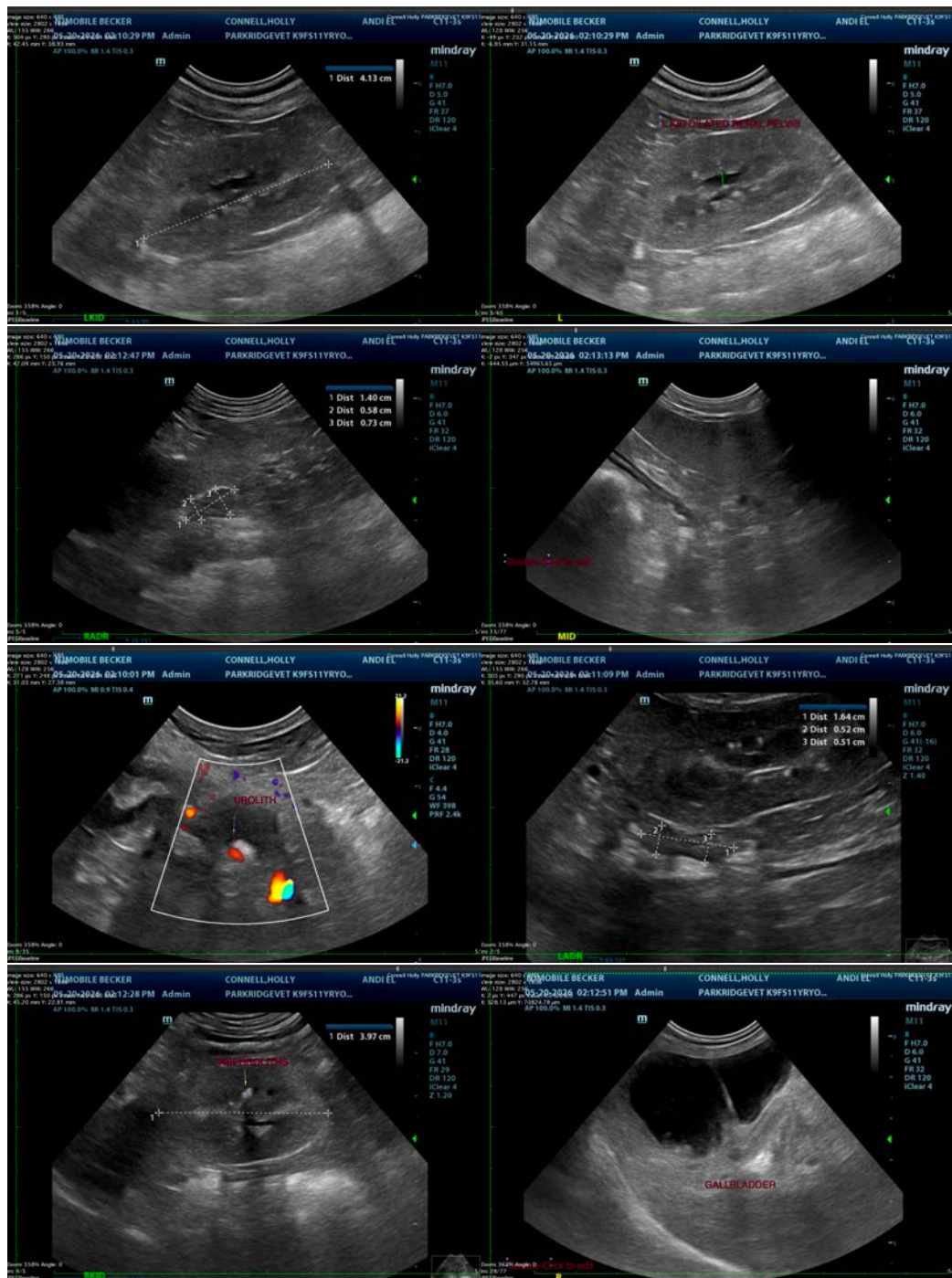
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weeks and recheck at that time of ultrasound and liver values to determine if improvement is seen. If the patient is not vaccinated for Leptospirosis, consider testing for this disease.

Ultimately, if gallbladder disease is ruled out, and no infiltrative disease or Leptospirosis is identified as a cause, then a liver biopsy would be recommended at that time.





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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.

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Canine

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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Yorkie

**Greg Kuhlman, DVM, DACVIM (SAIM)**

Veterinary Internal Medicine Specialist

[info@SonoPath.com](mailto:info@SonoPath.com)

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