



**PATIENT**

Lou Ochab

**SPECIES**

Canine

**BREED**

American Pit Bull  
Terrier Mix

**SEX**

Neutered male

**AGE**

8 years

**WEIGHT**

65 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING  
PERFORMED BY**

Dr. Kitz

**HOSPITAL NAME**

Woodlands AH

**REFERRING VET**

Dr. Kitz

**INVOICE**

43912

**DATE**

4/20/23

**PRESENTING CLINICAL SIGNS**

**History:** Patient had routine senior labwork and urinalysis done in September 2022 and proteinuria was noted. All remaining labwork was normal, including negative 4DX and normal blood pressure. He needed a dentistry so we performed a dental cleaning in October 2022 and elected to recheck the urinalysis following the cleaning to track proteinuria.

**Abnormal PE/Chem/CBC/UA Results:** Repeat U/A (free catch) showed significant proteinuria 3/2023. This was rechecked with a cystocentesis and confirmed to be repeatable, with inactive sediment. A urine protein:creatinine ratio was added on and it was elevated at 1.1. A concurrent urine culture was negative. Recommended pet be started on benazepril at low dose for management of the proteinuria, and in the meantime offered radiographs of abdomen and ultrasound to search for potential underlying cause for persistent proteinuria. Xray report is attached.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. 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** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Minor microcystic changes were noted and measured up to 0.4 cm at the medial aspect of the left kidney. The right kidney measured 7.7 cm. The left kidney measured 7.1 cm.

**Adrenal Glands**

The left **adrenal gland** was 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 left adrenal gland measured 0.44 cm at the caudal pole and 0.51 cm at the cranial pole. The right adrenal gland was not visualized.

**Spleen**

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. A focal, hyperechoic nodule was noted and measured up to 1.0 cm. Other heterogenous parenchymal changes were noted. A second nodule was noted and was expansive measuring up to 2.6 cm. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes was noted.



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**Liver**

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

**Gastrointestinal**

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.

**Pancreas**

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.

**ULTRASONOGRAPHIC FINDINGS**

Splenic nodule/mass and separate nodular changes.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Proactive splenectomy is likely in this patient's best interest. Liver inspection and biopsy can be performed at that time. Differentials include emerging hemangiosarcoma, round cell neoplasia, granulomatous disease and benign hyperplasia. Chest radiographs and echocardiogram are warranted. Renal biopsy could be performed at that time given the convenience of the procedure. The splenic lesions may be benign. However, given the breed predisposition to splenic neoplasia and the capsular expansion by the larger nodule, proactive splenectomy is my personal recommendation.



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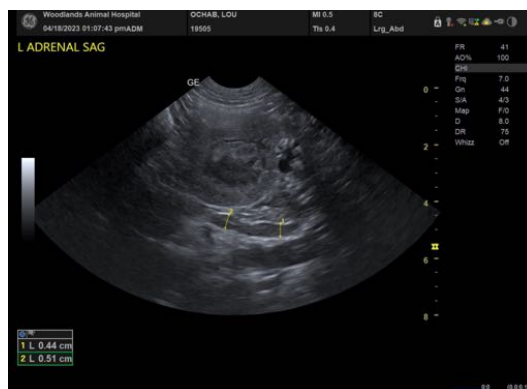
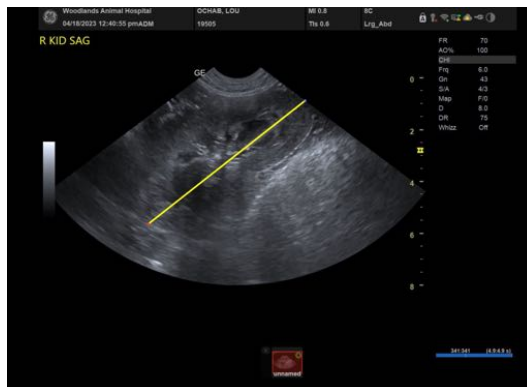
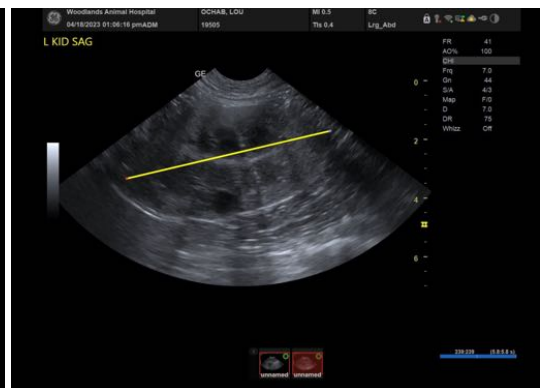
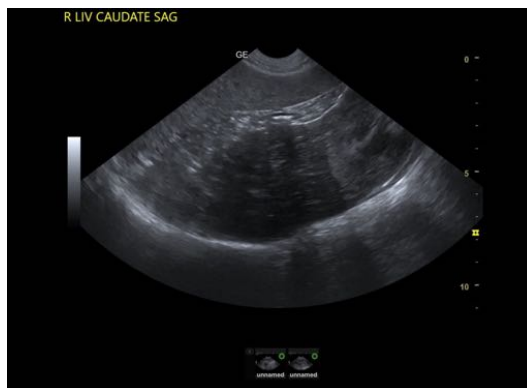
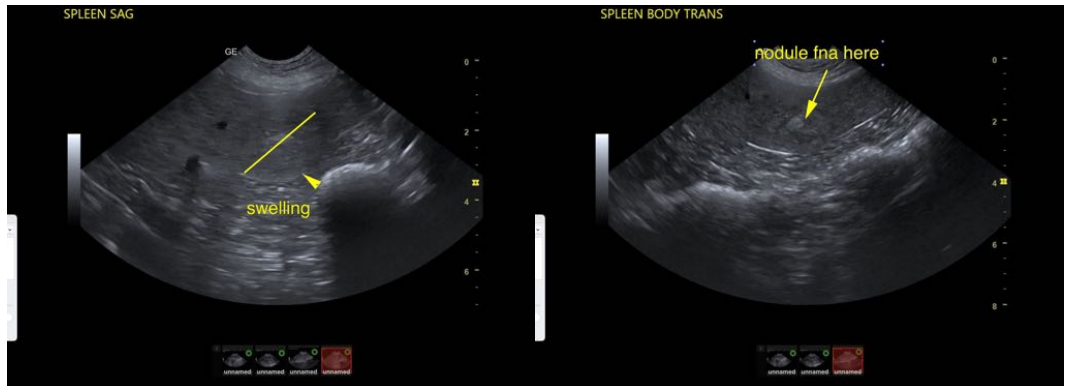
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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