



**PATIENT PRESENTING CLINICAL SIGNS**

Sandy Zimmerman

History: Most recently presented for a broken tooth. Also has long history of allergies. Routine lab work revealed proteinuria and positive Anaplasma (see below). Current meds: Doxycycline and Enalapril

**SPECIES**

Abnormal PE/Chem/CBC/UA Results: Chem: Albumin = 2.6 (Borderline low) Anaplasma 4DX (+) Urine Protein = 4+ (UPC = 4.5) USpG=1.028 Hyaline casts = 4+

Canine

**BREED**

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Jack Russell

**Urinary System**

**SEX**

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.

Intact female

**AGE**

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. Moderate pinpoint mineralization was noted. Nephrolithiasis was noted and was non-obstructive. The left kidney measured 4.6 cm. The right kidney measured 4.7 cm.

10 ½ years

**WEIGHT**

19.4 lbs

**INTERPRETED BY**

**Adrenal Glands**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

The left adrenal gland was at the upper limits of normal and visualized obliquely. The left adrenal gland measured 0.7 cm. The right adrenal gland was uniform and measured 0.62 cm.

**IMAGING PERFORMED BY**

Amy Priest

**Spleen**

**HOSPITAL NAME**

Long Valley AH

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself cranially. Occasional, non-obstructive, hypoechoic nodule measuring up to 0.4 cm was noted. This is a positional variant and is not pathological. There was no evidence of significant disease.

**REFERRING VET**

Dr. Earl

**Liver**

**INVOICE**

43701

Exam of the cranial abdomen demonstrated excessive **liver** size, swollen contour, with conserved uniform architecture. Parenchymal echogenicity was diffusely isoechoic to the spleen and falciform fat. Minor excessive GB debris was noted with the presence gall bladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future. This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.

**DATE**

4/4/23



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**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**

Benign hepatopathy.

Non-specific mild to moderate interstitial nephrosis renal pattern with non-obstructive nephrolithiasis.

Slight splenic nodule.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of significant disease. Diet change may be appropriate.

Internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>





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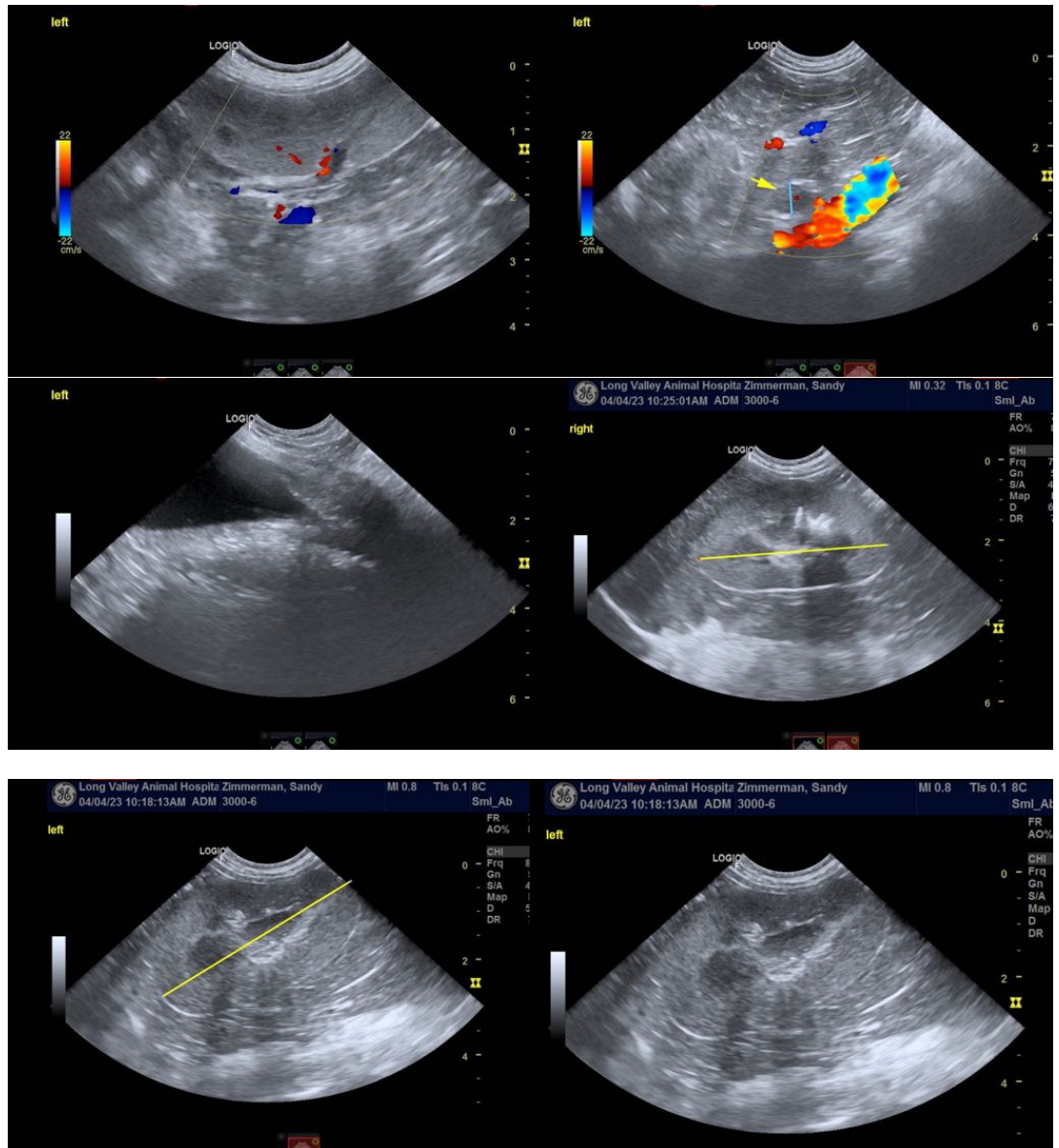
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
info@SonoPath.com