

**DATE PRESENTING CLINICAL SIGNS**

3/27/23

Re-evaluation of liver due to increase in ALP and ALT - P has had several U/S performed.

Current Medications: Tramadol 50mg - 1/2 tablet PO q8hrs - started 3/21, Ursodiol 100mg/mL - 0.85mL PO q24hrs - over 1 year

**PATIENT**

Lab Results: Elevated ALP and ALT

Leela Whitlock

Date of Previous IntraPet Ultrasound: 10/8/21. See attached.  
9/5/2021.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**SPECIES**

Imaging Performed By: Rachel Brillhart, RDMS.

Canine

**BREED****ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Mixed

**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.**SEX**

Spayed female

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. The left kidney measured 4.16 cm. The right kidney measured 4.62 cm with slight pyelectasia.**AGE**

6/26/10

**WEIGHT**

17.9 lbs

**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 left adrenal gland measured 2.33 x 0.64 cm at the caudal pole and 0.64 cm at the cranial pole. The right adrenal gland measured 2.29 x 0.59 cm at the caudal pole and 0.63 cm at the cranial pole.**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**Spleen****HOSPITAL NAME**The **spleen** was largely normal with focal, hypoechoic 0.42 cm nodule in the midbody.**Liver****REFERRING VET**The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.**INVOICE****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. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

### **Heart**

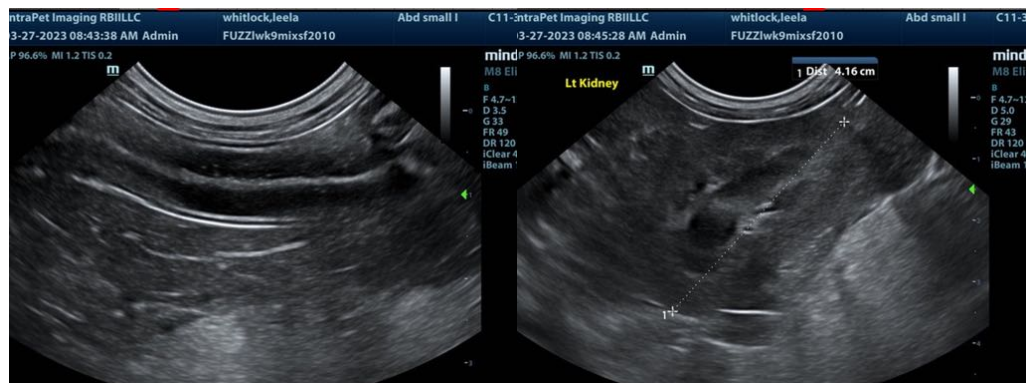
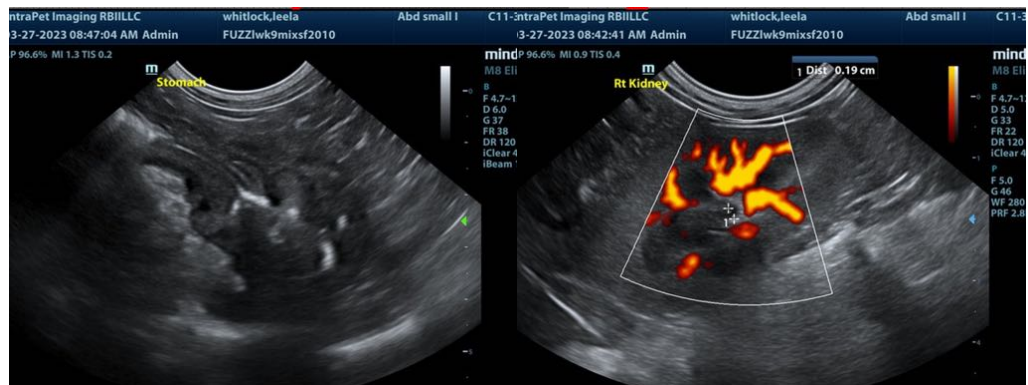
Rapid view of the heart revealed normal volume and contractility. The right auricle and pericardium were free of evident pathology. There was no pleural effusion or pathology noted in the acoustic window provided.

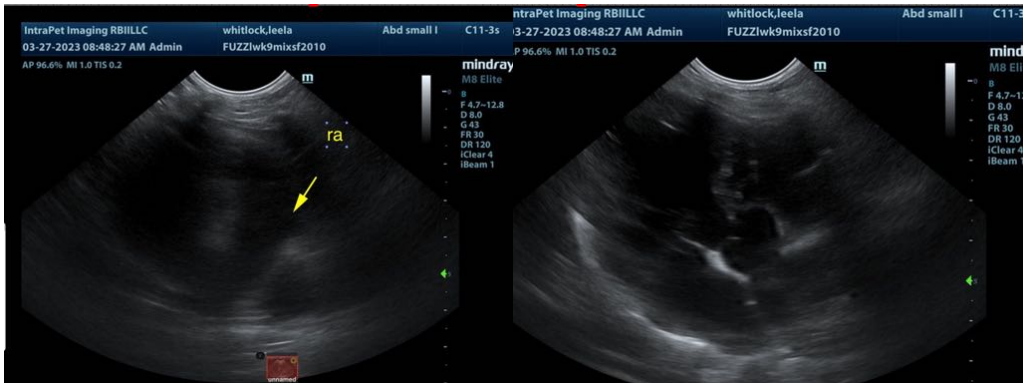
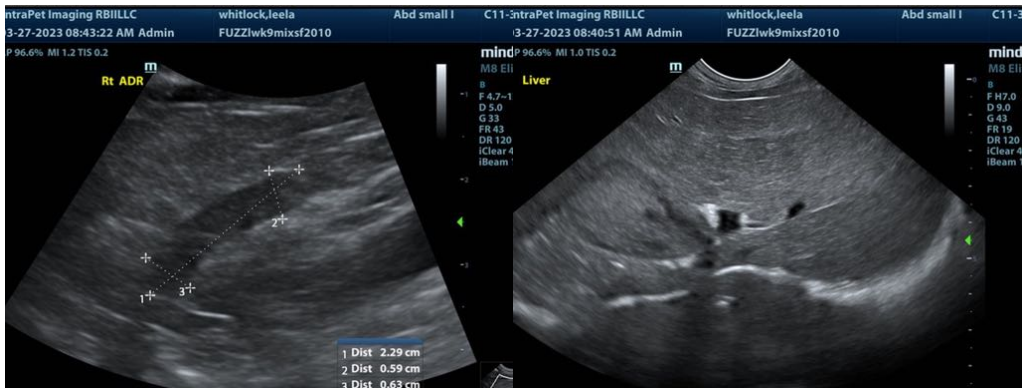
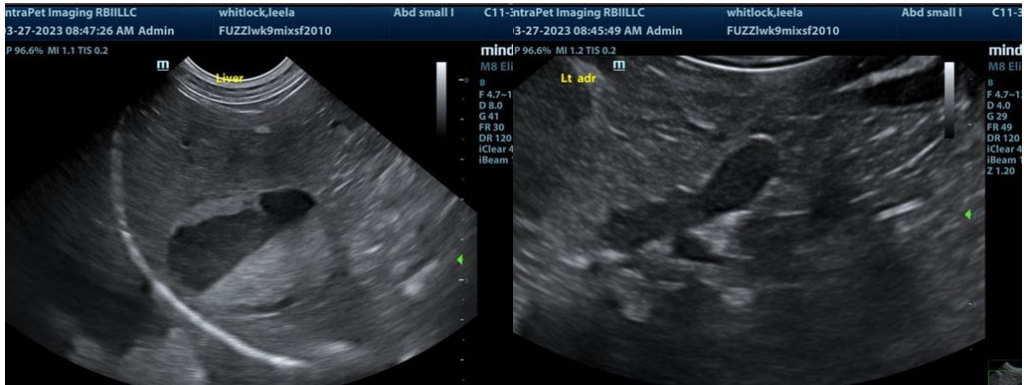
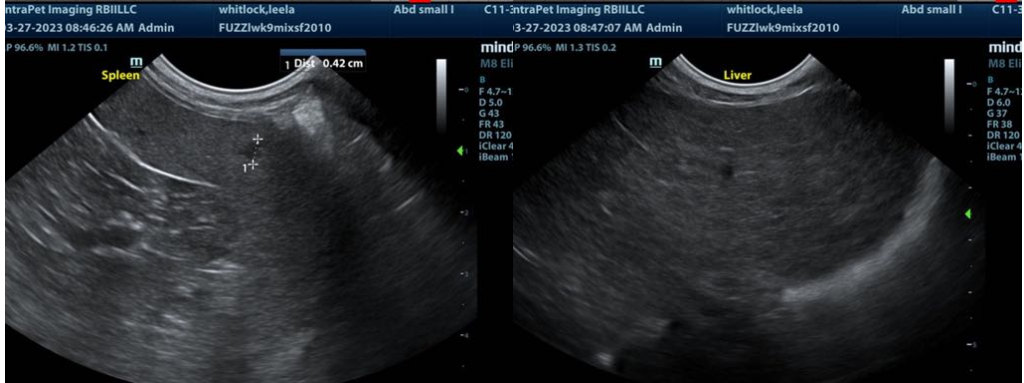
### **ULTRASONOGRAPHIC FINDINGS**

Vacuolar hepatopathy liver pattern with remodeling owing to history of inflammatory hepatopathy.  
Immature emerging gallbladder mucocele.  
Focal splenic nodule.  
Unremarkable heart in the view provided.

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ursodiol therapy is warranted over the next 6 weeks. FNA of the liver and spleen is indicated. Otherwise, unremarkable abdomen.





**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.

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