

**DATE**

4/14/22

**PRESENTING CLINICAL SIGNS**

Increasing liver enzymes.

Current Medications: Thyro-tabs 0.4mg BID.

Lab Results: 2/16/22- PE- overweight with labwork diagnostic for hypoT4 and mild elevated liver enzymes.

Pt. started on ThyroTabs and recheck labwork showed normal T4 but liver enzymes higher.

2/16/22- &gt;ALT=181, &gt;ALP=994, T4=&lt;0.5, FT4=5.8

3/17/22- &gt;ALT=397, &gt;ALP=1045, T4=2.2 (post pill)

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**PATIENT**

Girly Tompkins

**SPECIES**

Canine

**BREED**

Australian Cattle Dog

**SEX**

Spayed Female

**AGE**

12/1/08

**WEIGHT**

67 lbs

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**HOSPITAL NAME**

Alexander AH

**REFERRING VET**

Dr. Alexander

**INVOICE**

99316

**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 normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex. The capsules were acceptably uniform without significant irregularities. The right kidney measured 6.03 cm. The left kidney measured 6.74 cm with trace pyelectasia.

**Adrenal Glands**

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The right adrenal gland measured 3.05 x 0.8 cm at the cranial pole and 0.82 cm at the caudal pole. A hyperechoic 0.96 cm nodule was noted at the mid cranial body of the right adrenal gland. The left adrenal gland measured 2.83 x 0.81 cm at the caudal pole and 0.73 cm at the cranial pole.

**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.

**Liver**

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. Micronodular hepatic changes were noted and non-disruptive. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. A hypoechoic nodule was noted in the left cranial liver and measured 1.09 cm. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

### **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**

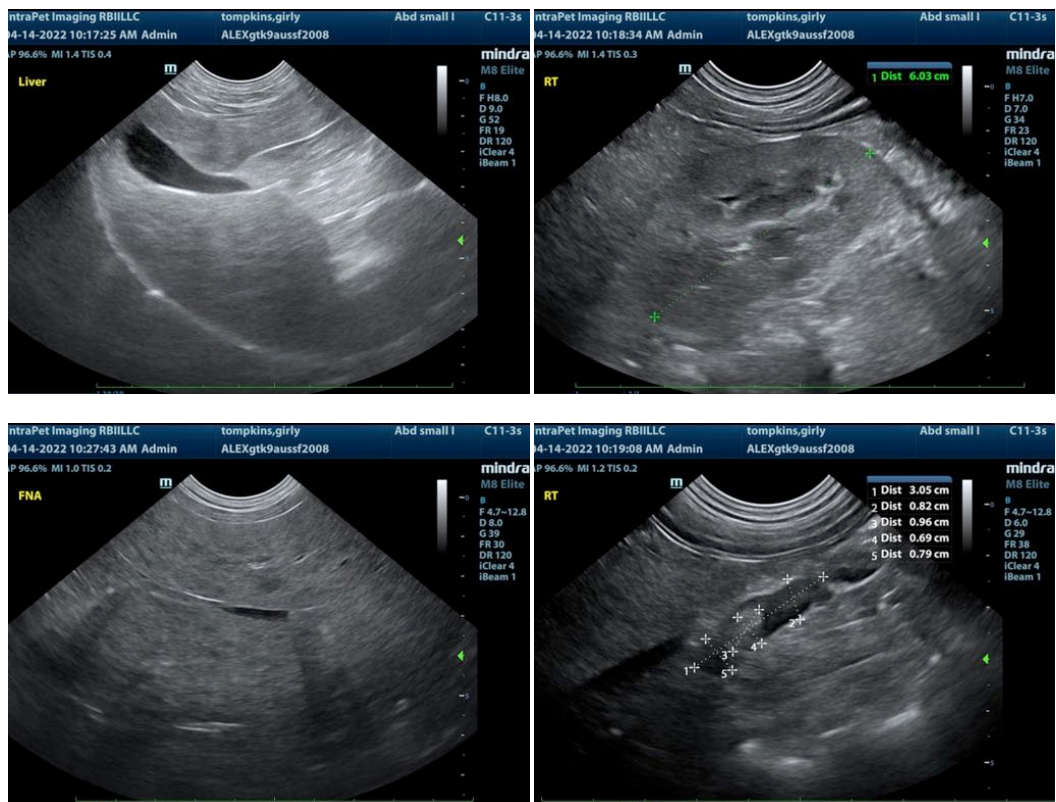
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain 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.

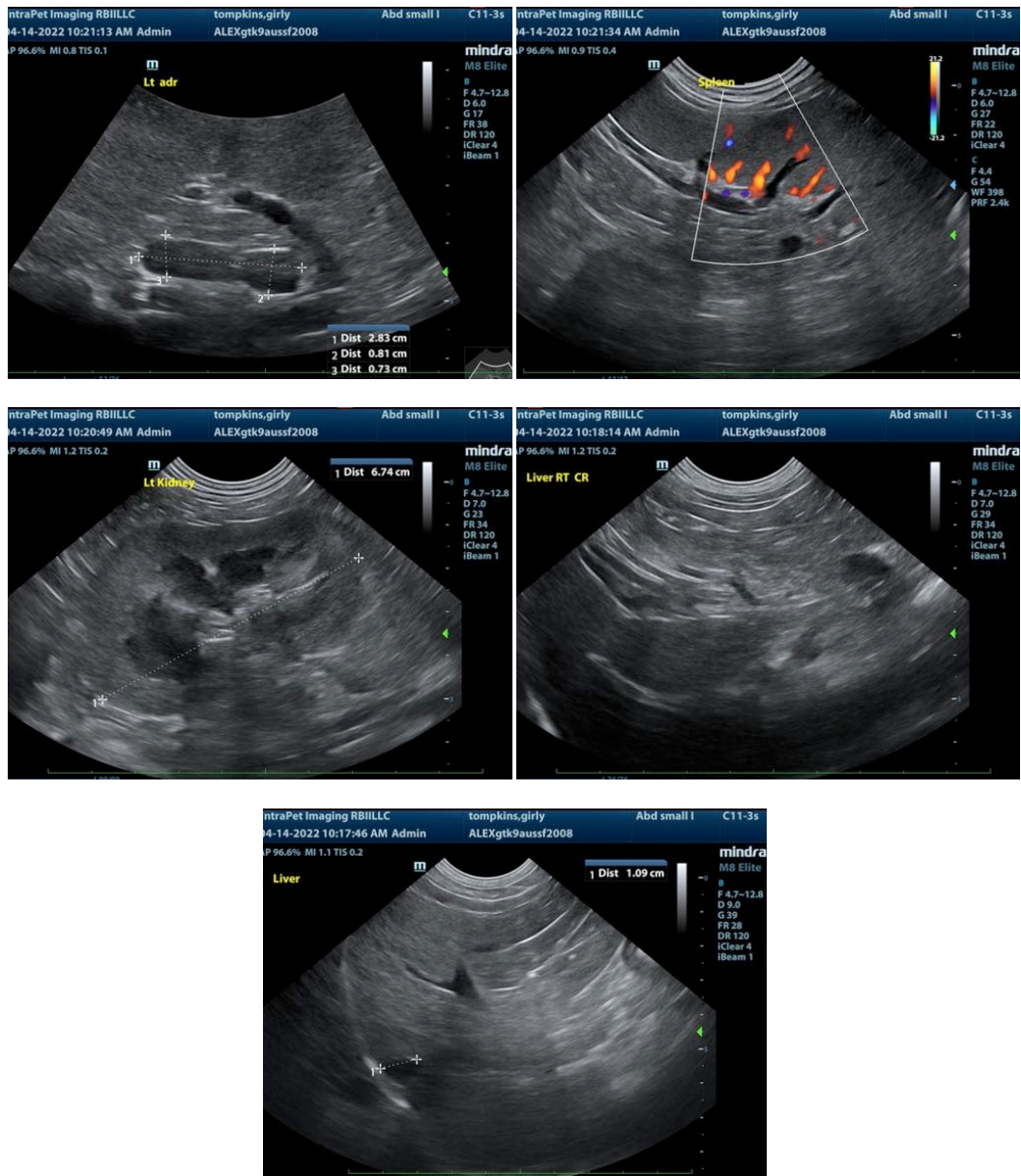
### **ULTRASONOGRAPHIC FINDINGS**

Micronodular liver with remodeling.  
Right adrenal nodule.  
Bilateral adrenal hypertrophy.

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

FNA of the liver was performed without complication. I suspect PDH if the patient appears Cushingoid. Nodular hyperplasia of the liver is likely, confirmation should be based on FNA results.





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