**DATE PRESENTING CLINICAL SIGNS**

10/20/21 History: Presented for increased panting. History of elevated liver enzymes.  
 Weight gain. No other abnormalities noted by owner.

**PATIENT**

Daisy Ouslander

Current Medications: Just FT and HWP  
 Lab Results: Elevated liver enzymes  
 Date of Previous IntraPet Ultrasound: 03/25/2020  
 Sedation: not needed  
 Stat Report: not requested

**SPECIES**

Canine

**BREED**

Pit Bull

**SEX**

Spayed Female

**AGE**

2012

**WEIGHT**

64 Pounds

**INTERPRETED BY**

Andrea Nicastro, DMV,  
 Diplomate DACVIM  
 (Small Animal  
 Internal Medicine)

**HOSPITAL NAME**

Frederick Road VH

**REFERRING VET**

Dr. Franchini

**INVOICE**

13909

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney presented normal size (6.51 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney presented normal size (6.80 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal size (0.66 cm at cranial pole) (0.67 cm at caudal pole) (2.23 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.71 cm at cranial pole) (0.65 cm at caudal pole) (3.50 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is normal in size (2.53 cm at the level of the hilus) with a normal capsular contour. A light micronodular pattern is present throughout the parenchyma. No focal lesions are observed. Splenic vasculature is normal.

**Liver**

The liver is subjectively normal in size with slightly irregular caudal contour. The parenchyma is hypoechoic relative to the spleen and slightly mottled in appearance. A 3.01 cm x 2.51 cm hypoechoic mass is observed

at the caudal aspect. The lesion causes capsular expansion. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is mildly distended. The wall is normal in thickness. A small amount of mostly gravity dependent echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

### ***Pancreas***

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

### ***Free Abdomen***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

### ***Other***

A uterine stump is visible, measuring 0.75 cm in width. No obvious pathology is seen.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Non-specific diffuse hepatopathy, differentials include inflammatory/immune mediated disease (i.e., bacterial cholangiohepatitis, chronic active hepatitis), Leptospirosis, hepatotoxicosis (i.e., copper), reactive hepatopathy, other. The hepatic nodule/mass is concerning for neoplasia. However,,benign pathology (i.e., regenerative nodule or inflammatory focus) is possible.
- Gallbladder debris, non-mucocele

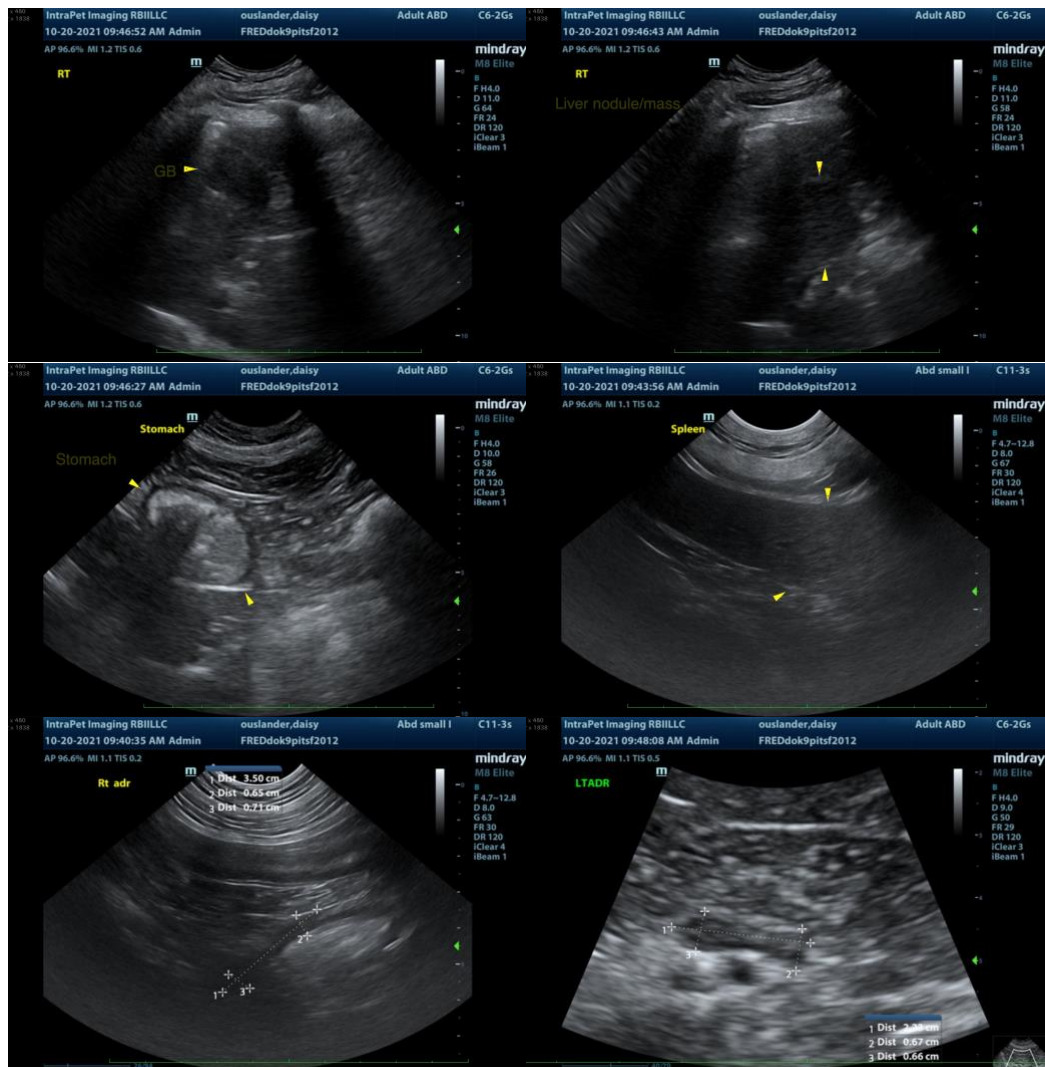
### **Secondary Findings**

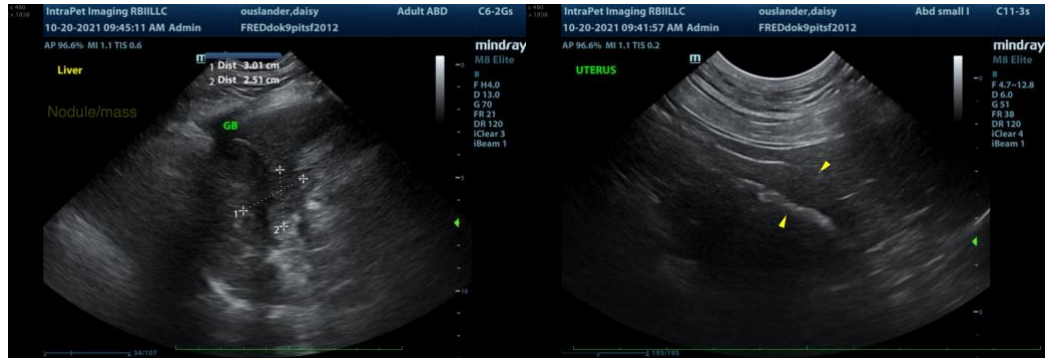
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- Visible uterine stump- incidental

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

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.

- Given the presence of the hepatic nodule/mass, an abdominal exploratory with liver biopsies and mass removal are recommended along with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for possible copper quantitation. If a more conservative approach is desired, consider a fine needle aspirate of the liver +/- empirical treatment for bacterial cholangiohepatitis (amoxicillin, clavulanic acid, denamarin). If liver values do improve, therapy should be continued for at least 4-6 weeks and 1 week beyond normalization of the liver values, particularly the ALT. The liver nodules/mass should be monitored sonographically (i.e., monthly) if surgery is not to be pursued at this time.
- Leptospirosis testing (i.e., blood and urine PCR, serology) is also recommended.





**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.

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