

**DATE PRESENTING CLINICAL SIGNS**

10/18/21

History: Grade 4/6 Heart Murmur, enlarged liver. Persistent cough since about April 2021.

**PATIENT**

Zelda Chittenden

Current Medications: No current medications.

Lab Results: ALT 156 (has been high in past), ALP 1091 (has been high in past), Na:K ratio 26; usually higher (in past 31 &amp; 35). T4 normal, 4DX negative

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Sedation not required for scan.

Stat Report: STAT report not requested by the veterinarian.

**SPECIES**

Canine

**BREED**

Mixed breed

**SEX**

Female, spayed

**AGE**

7/4/2008

**WEIGHT**

13.45 kg.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
 Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

**HOSPITAL NAME**

White Marsh AH

**REFERRING VET**

Dr. Danna

**INVOICE**

12363

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

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone is normal.

The left kidney is normal size (4.79 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. 1-2 small cortical cysts are visualized.

The right kidney is normal in size (5.44 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is minimal loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis.

**Adrenal Glands**

The left adrenal gland is normal size (0.63 cm at cranial pole) (0.51 cm at caudal pole) (1.90 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 (0.77 cm at cranial pole) (0.59 cm at caudal pole) (1.66 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 (1.73 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

**Liver**

The liver is subjectively enlarged with rounded to irregular peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogeneous in appearance. At the tip of the left lateral lobe an irregular accumulation of subcapsular fluid is present. The hepatic veins are dilated. Intrahepatic biliary tracts are of normal. The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.

**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. 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 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***

Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

#### ***Other***

The caudal vena cava is subjectively dilated (1.59 cm in diameter).

### **ULTRASONOGRAPHIC FINDINGS**

#### **Primary Findings:**

- Given the dilated hepatic vessels and caudal vena cava along with trace ascites, right sided congestive heart failure or compression/obstruction of the caudal vena cava within the thorax is suspected.
- The diffuse hepatic parenchymal changes are non-specific and likely benign in origin (i.e., vacuolar hepatopathy and/or regenerative nodular hyperplasia). Inflammatory and infiltrative disease are considered less likely. The significance of the subcapsular fluid accumulation at the tip of the left lateral lobe is unclear but may be secondary to passive congestion, hemorrhage, early neoplasia, other.

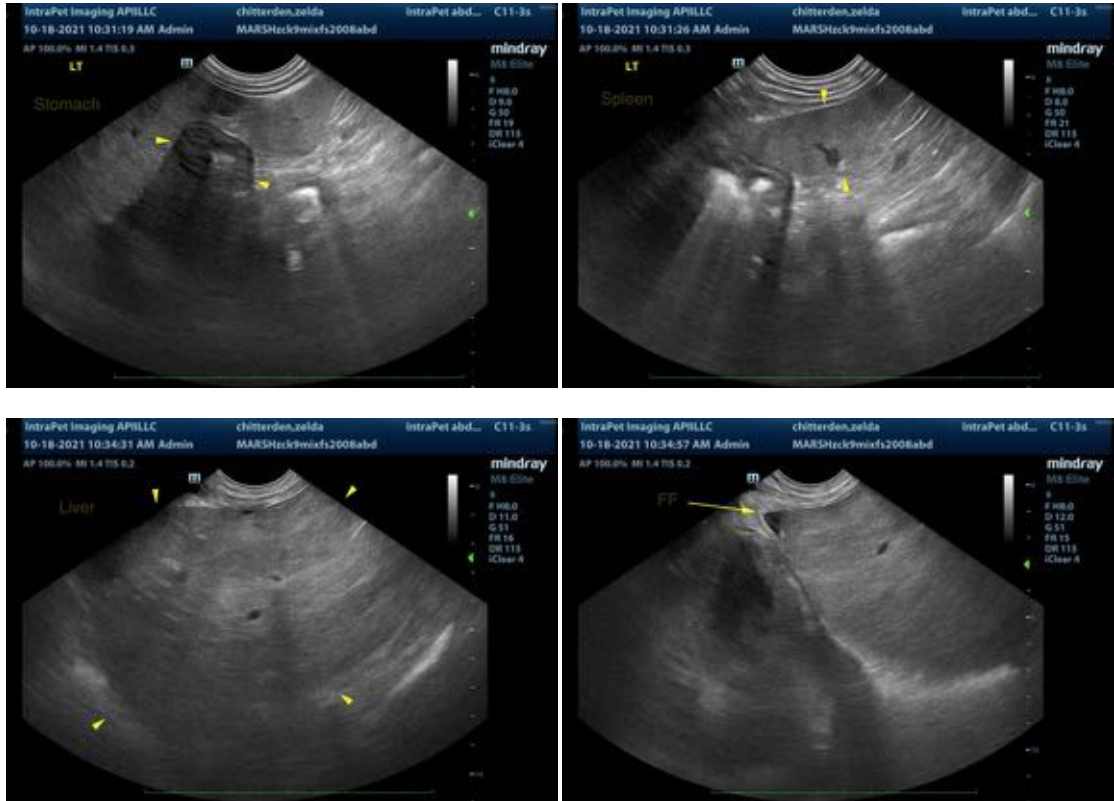
#### **Secondary Findings:**

- Bilateral age-related renal changes.

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

- Consider rechecking an ultrasound of the liver, particularly the left lateral lobe, in 3-4 weeks to re-evaluate the area of subcapsular fluid.
- Serial monitoring of the patient's liver values (i.e., every 3-4 months) is recommended with repeat abdominal imaging +/- hepatic tissue sampling if values continue to increase.
- Further recommendations should be based on the cardiac evaluation.





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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