

**DATE PRESENTING CLINICAL SIGNS**

8/19/21

History: Yearly follow up on Late stage B2 Heart failure - doing very well. Riley is having an echocardiogram performed today as well.

**PATIENT**

Riley Wojciechowski

Current Medications: Enalapril 5 mg -po BID, Vetmedin 3.75 mg - po BID, Denamarin Adv – daily, Wellactin daily, Dasuquin Adv daily. Routine preventions.

**SPECIES**

Canine

Lab Results: ALT 400. History of mild ALT elevations. BP - 152mm/hg - anxious.

Radiographs: Not provided by the veterinarian.

**BREED**

Mixed Breed

Date of Previous IntraPet Ultrasound: 7-24-2020 (echo).

Sedation: Sedation not required for scan.

**SEX**

Male Neutered

Stat Report: Stat report requested.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

6/27/10

**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 mostly 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.

**WEIGHT**

25.6 lbs.

The prostate is not definitively visualized due to its pelvic location.

**INTERPRETED BY**

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

The left kidney is normal size (5.28 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 is normal size (5.60 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. Renal vasculature is normal.

**HOSPITAL NAME**

Eastern Animal Hospital

**Adrenal Glands**

The left adrenal gland is normal size (0.51 cm at cranial pole) (0.55 cm at caudal pole) (2.05 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.

**REFERRING VET**

Dr. Kaufman

The right adrenal gland is normal size (0.68 cm at cranial pole) (0.53 cm at caudal pole) (2.00 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.

**INVOICE**

11667kk

**Spleen**

The spleen is normal in size (1.26 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 prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder is distended. The wall is normal in thickness. A moderate amount of gravity-dependent, mineralized sand is observed within the lumen as well as a small amount of suspended, echogenic debris. 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 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 right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

### *Free Abdomen*

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

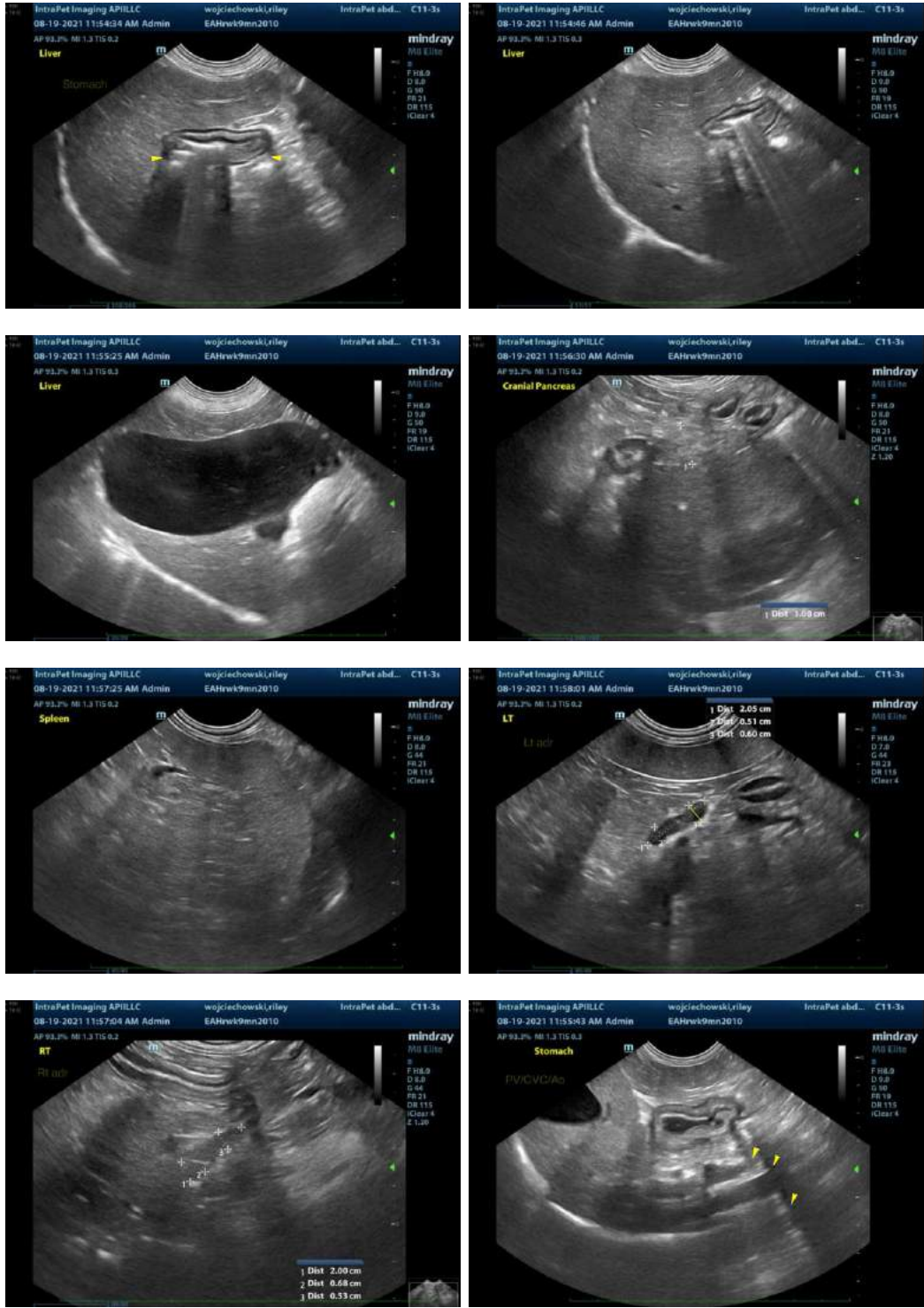
- Non-specific diffuse hepatopathy. Differentials include inflammatory/immune-mediated disease, hepatotoxicosis (i.e., copper), reactive hepatopathy, infiltrative neoplasia (unlikely) +/- concurrent age-related pathology.

### **Secondary Findings:**

- Minor, non-specific, age-related renal changes.
- Gall bladder sand – incidental.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

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

If an aggressive approach to the elevated ALT is desired, a fine needle aspirate of the liver can be considered (if clotting status is appropriate). A 25-gauge needle should be used. If a more conservative approach is desired, consider empirical treatment for cholangiohepatitis (i.e., amoxicillin clavulanic acid, Denamarin) with recheck of the liver values 7 – 10 days after initiation of therapy. If no improvement in the liver values is seen, antibiotics should be discontinued, and hepatic tissue sampling revisited. If the ALT has improved, continue therapy for 4-6 weeks and 1 week beyond normalization of the ALT. Ultimately, a liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation may be necessary to get a definitive diagnosis. However, the patient's heart disease must be considered with regard to anesthetic risk.



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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