

**DATE PRESENTING CLINICAL SIGNS**

2/21/22

**PATIENT**

Joker Scherer

Chronically managed hyperthyroid patient presents for lethargy and inappetence, 2-3 day duration. Labs for Methimazole submitted last week showed ALT of 136 (ref 100), T4 of 5.9 while receiving 7.5mg Methimazole BID. Owner instructed to increase to 8.75mg BID but due to illness has not adjusted yet. Labs repeated on 2/19 showed ALT of 118 (ref 130). Patient is underweight with abnormal consolidated cranial left lung lobe or mass/mass effect, distended gallbladder, patient was febrile on intake at 103, received single inj Onsior, has since been normothermic. Heart murmur 2-3/6.

**SPECIES**

Feline

Current Medications: Methimazole 7.5mg BID chronic, Convenia given 2/20/22, LRS 2x maintenance started 3 days ago, Cerenia 3.5mg started 3 days ago

**BREED**

Domestic shorthair

Lab Results: Borderline anemia.  
 Radiographs: Consolidated left cranial lung lobe vs mass/mass effect.  
 Date of Previous IntraPet Ultrasound: No previous  
 Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: Not requested.

**SEX**

Male, neutered

Imaging Performed By: Stephanie Pearce RDCS, RVT.

**AGE**

7/27/2007

**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.

**WEIGHT**

7.69 lbs.

The left kidney is borderline small in size (3.13 cm in length) with a normal shape and smooth peripheral contours. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

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

The right kidney is normal in size (3.37 cm in length) with a normal shape and smooth peripheral contours. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Non-obstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Everhart VH

**Adrenal Glands**

The left adrenal gland is normal in size (0.50 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

**REFERRING VET**

Dr. Hays

The right adrenal gland is prominent in size (0.59 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

**INVOICE**

13005

**Spleen**

The spleen is normal in size (1.10 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 slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and homogeneous in appearance. There is a subtle increase in portal markings. Vascular is of normal volume with no evidence of congestion. The portal vein: caudal vena cava: aortic ratio is approximately 1:1.

The gall bladder lumen is moderately distended. The wall is slightly thickened (up to 0.16 cm) and hyperechoic. A small amount of suspended echogenic debris is observed within the lumen. The cystic and common bile duct walls are diffusely thickened. The lumens are visible but not overtly dilated (the common bile duct diameter is 0.22 cm at the level of the duodenal papilla). The duodenal papilla is normal in size (0.39 cm in width). There is no obvious evidence of intraluminal obstruction.

### ***Gastrointestinal***

The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. In at least 2 segments of small intestine, there is a focal severe thickening of the muscularis layer (up to 0.72 cm) with questionable retention of the normal layering pattern. The remaining small intestinal segments are normal in thickness with a normal layering pattern and appropriate mural detail. The ileocecal colic junction and colonic wall are normal. No obstructive disease is noted.

### ***Pancreas***

The pancreas is normal in size with normal peripheral contours. The pancreatic duct is normal. The base and limbs of the pancreas are isoechoic to surrounding omental fat. No focal lesions are observed. There is no evidence of peripancreatic inflammation or effusion.

### ***Free Abdomen***

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

### ***Other***

A brief evaluation of the thorax reveals pleural effusion and consolidated pulmonary parenchyma in the right hemithorax. There is no obvious evidence of pericardial effusion.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

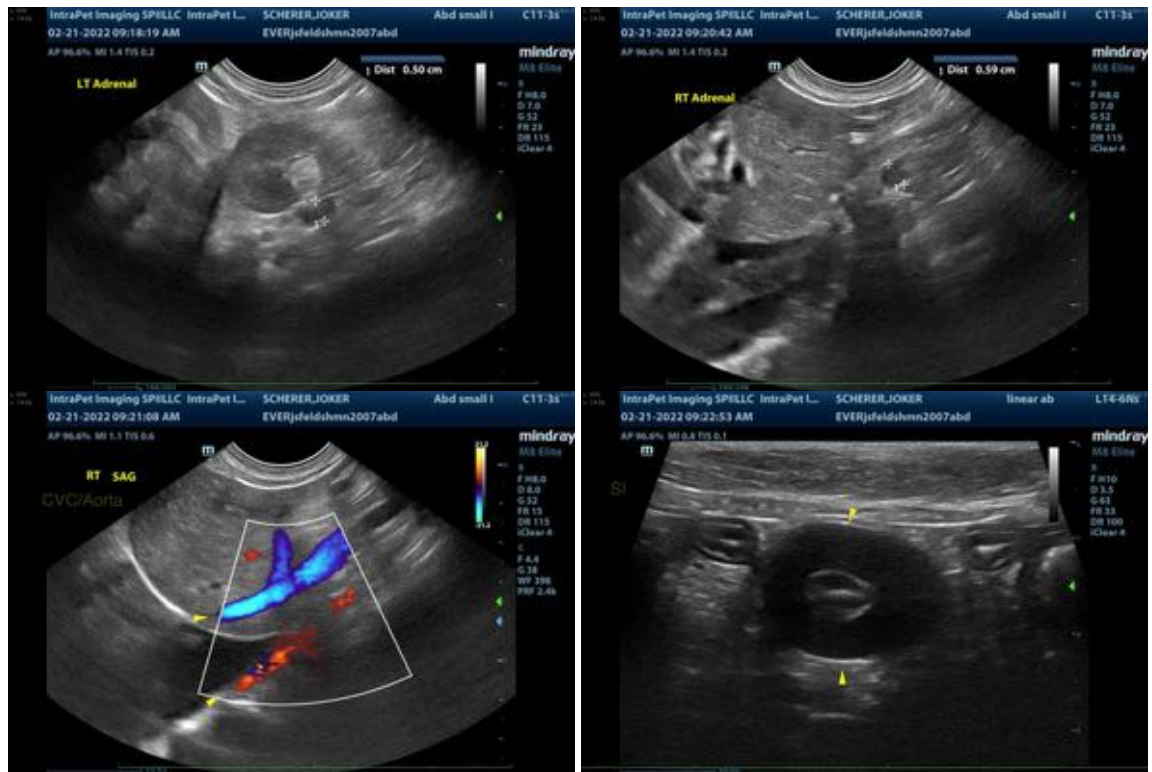
- The focal small intestinal wall thickenings are concerning for infiltrative neoplasia (i.e., lymphoma, adenocarcinoma). However, hypertrophy or a severe inflammatory process cannot be excluded.
- The gallbladder/common bile duct and hepatic changes are suggestive of cholecystitis/cholangitis/inflammatory hepatopathy, respectively.
- The trace ascites may be secondary to increased vascular permeability, increased hydrostatic pressure or low oncotic pressure. Correlation with clinical findings is recommended.
- Pleural effusion
- Consolidated lung, right hemithorax. Differentials include inflammatory disease, neoplasia.

### **Secondary Findings:**

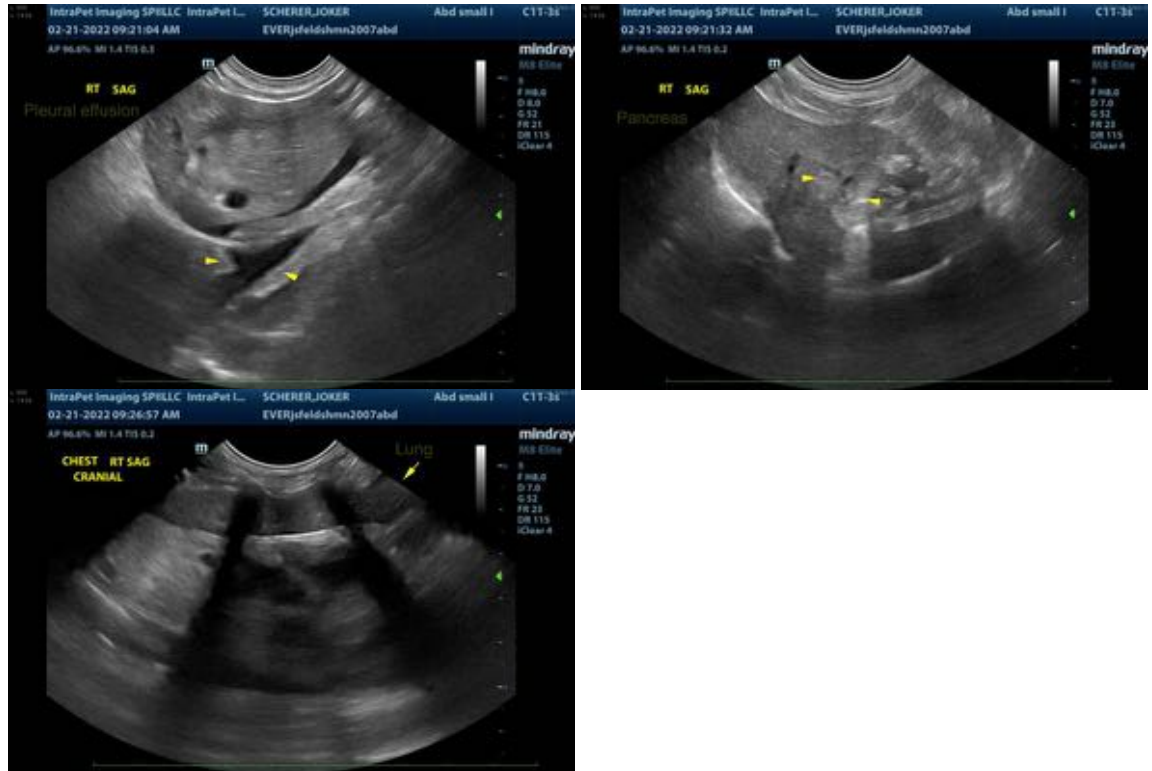
- Bilateral chronic age-related renal changes with non-obstructive nephrolithiasis.
- The mild right adrenomegaly may be secondary to stress, hyperplasia, emerging tumor or may be a normal variant for this patient.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Fine needle aspiration of the thickened bowel segments is recommended if accessible and if clotting status is appropriate. Also consider an ultrasound guided fine needle aspirate of the consolidated lung tissue.
- A malabsorption panel including serum cobalamin folate, TLI and PLI should also be considered.
- Further recommendations should be based on the echocardiogram and cytology results (if performed).







**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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