

**DATE PRESENTING CLINICAL SIGNS**

1/24/2022

History: 1/8/22; shaking, decrease in appetite, weight loss.

**PATIENT**

BeeBee Smith

Current Medications: Cerenia x 4 days starting 1/8/22.

Lab Results: Chem: Alkp - 6881, ALT- 918, GGT- 89, tbil - 0.5.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**SPECIES**

Canine

Imaging Performed By: Stephanie Pearce RDCS, RVT.

**BREED**

Mixed breed

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**

Female, spayed

**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 and the visible portion of the proximal urethra are normal.

**AGE**

3/9/2008

The left kidney is normal size (4.38 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. Mild pyelectasia is present (0.28 cm in the longitudinal plane). There is no evidence of nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

29.2 lbs.

The right kidney is normal size (5.09 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.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is mildly enlarged (0.61 cm at cranial pole) (0.79 cm at caudal pole) (2.19 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.

**HOSPITAL NAME**

Everhart VC

The right adrenal gland is normal size (0.52 cm at cranial pole) (0.56 cm at caudal pole) (1.91 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****Spleen**

The spleen is normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. A few ill-defined myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

**INVOICE**

12898

**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated echogenic

partially dependent debris/sludge 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 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***

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

### ***Other***

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- An obvious cause for the elevated liver enzymes is not identified in the study. However, a microscopic hepatopathy (i.e., bacterial cholangiohepatitis, Leptospirosis, chronic active hepatitis, copper-associated hepatotoxicity, infiltrative neoplasia (less likely)) should be considered.
- Gallbladder debris, non-mucocele.

### **Secondary Findings:**

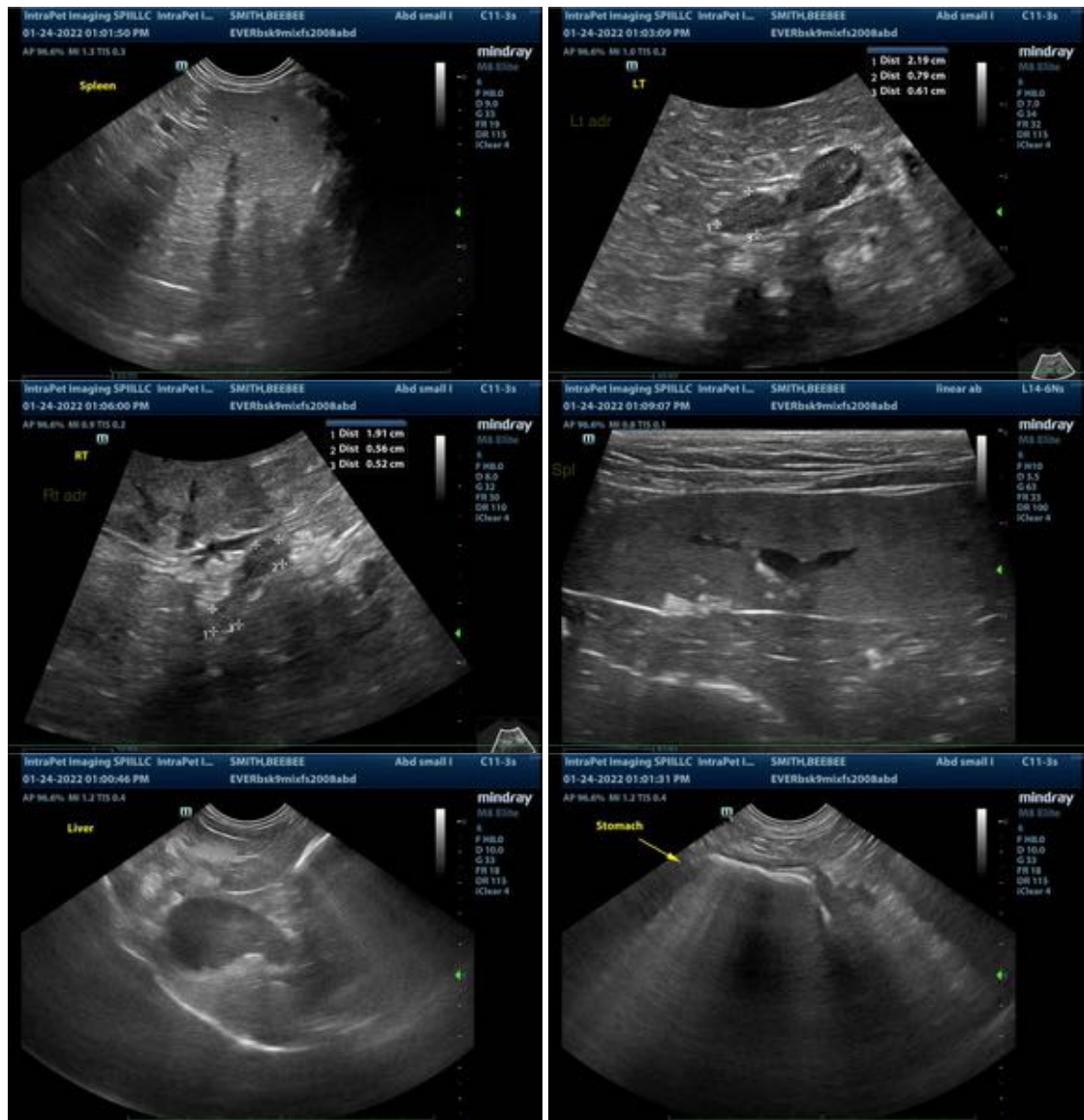
- Mild left adrenomegaly. The mild left pyelectasia may be secondary to pyelonephritis, age-related remodeling, or fluid therapy (if applicable).

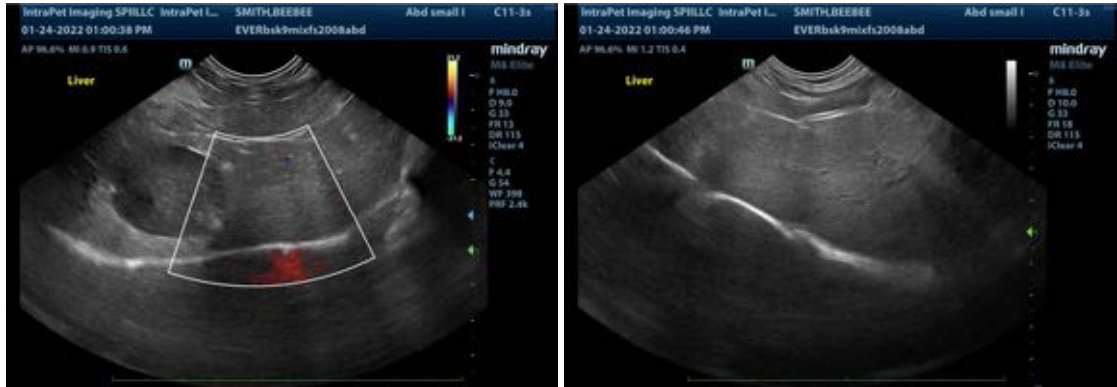
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Leptospirosis testing including blood and urine PCR, serology is recommended.
- Pre- and post prandial-serum bile acids should be considered to assess hepatic function.
- Cytologic evaluation of the liver should be considered in this patient if clotting status is appropriate. A fine needle aspirate using a 25-gauge needle is recommended. If cytologic evaluation is inconclusive, consider a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation. If a more conservative approach is desired, consider empirical treatment for bacterial cholangiohepatitis (amoxicillin-clavulanic acid, hepatic antioxidant) If no improvement in the liver values is seen within 7-10 days of

initiating therapy, antibiotics should be discontinued and hepatic tissue sampling reconsidered. If liver values improve, continue therapy for at least 4-6 weeks and 1 week beyond normalization of the liver values.

- Chest radiographs should be performed prior to any anesthetic event.





**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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