

**DATE PRESENTING CLINICAL SIGNS**

6/26/23

**PATIENT**

Mia Rods

**SPECIES**

Canine

**BREED**

Mixed Breed

**SEX**

Spayed Female

**AGE**

5/18/12

**WEIGHT**

55 Pounds

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM**HOSPITAL NAME**

Banfield Columbia

**REFERRING VET**

Dr. Hirsch

**INVOICE**

23095

History: Pet presented 5/18/23 for concerns of having urinary accidents in house. CBC/Chem - ALT 188, BUN 36, Creatinine 1.1. UA- USG 1.049, lots of struvite crystals. Treated with 14 days of simplicef and rimadyl Presented 6/9/23 for recheck .- ALT 233, BUN 23, creatinine 1.4. UA USG 1.040. 100+ protein, normal sediment. Physical exam notes from 6/9/2023- PE BAR BCS 6/9 mm pink, moist. CRT < 2 sec oral exam severe gingival recession over all incisors, heavy tartar, recession over 108,109,208,209 ocular exam linear cataract OS, otic exam moderate brown debris in pinna AU, cardiac and respiratory auscultation nsf, abdominal palp nsf. Coat & Skin Observations: 2cm round fatty mass on left ventral medial thorax; 3cmx5cm fatty mass on right lateral ventral abdomen, rectal formed feces present, anal glands mild amount of expressible material

Current Medications: finished 14 day course of simplicef 200mg PO SID and rimadyl 100mg 1/2 tablet PO BID.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

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

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal is size (6.9 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Right kidney is normal is size (5.92 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

Left adrenal gland is normal in size (2.19 cm long x 0.53 cm at cranial pole and 0.46 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (2.67 cm long x 0.59 cm at cranial pole and 0.45 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

### ***Gastrointestinal***

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

## **ULTRASONOGRAPHIC FINDINGS**

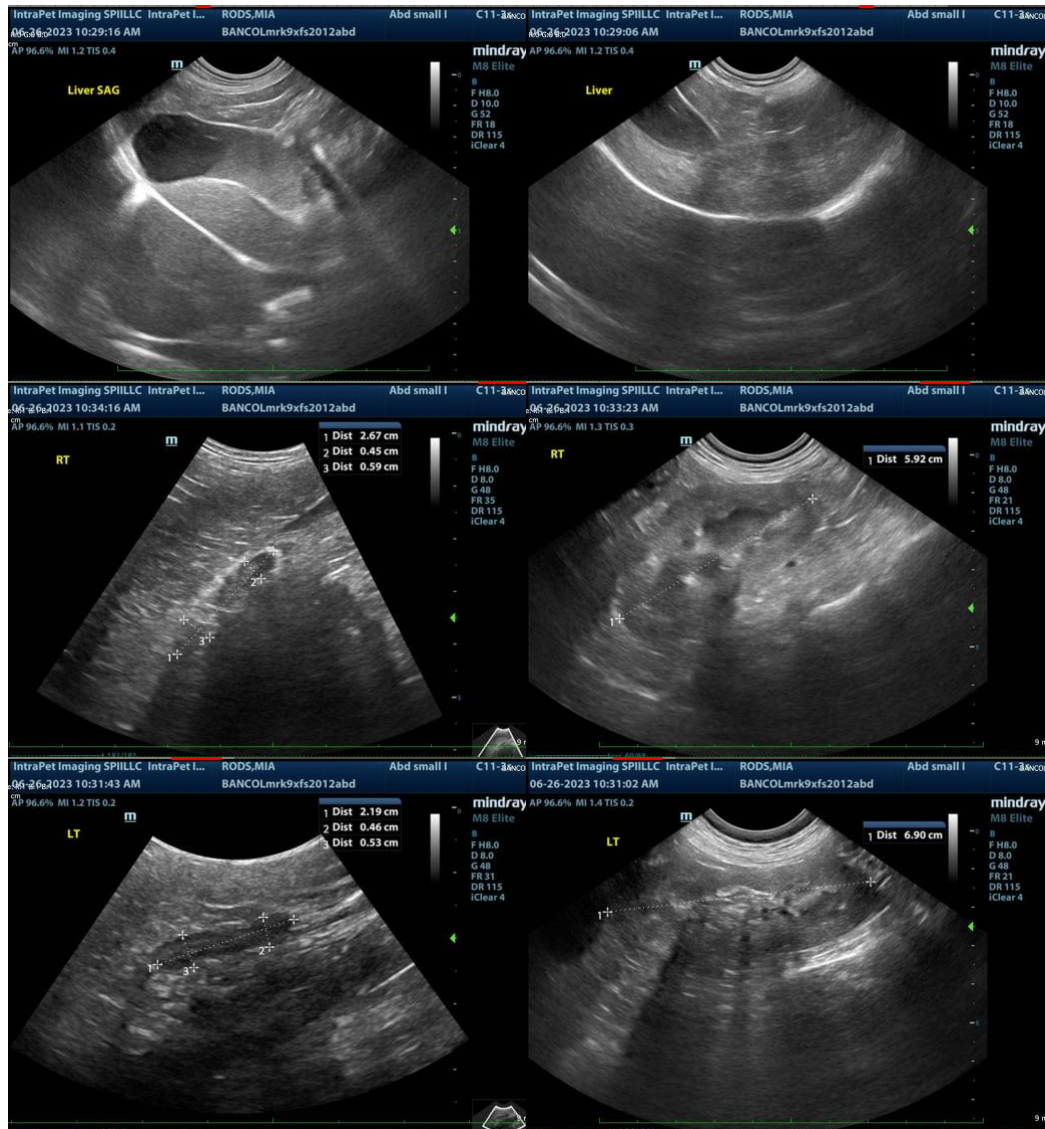
- Very mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- An obvious cause for the reported increased liver enzymes is not identified in these images. Microscopic disease such as Leptospirosis, bacterial cholangiohepatitis, chronic active hepatitis, copper-associated hepatotoxicity, other hepatotoxicity, infiltrative neoplasia (considered unlikely), etc. cannot be definitively ruled out.

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

Given this patient's reported persistent proteinuria in an otherwise quiet sediment, a urine protein to creatinine ratio is recommended for further quantification of the proteinuria and to help guide treatment if necessary. Additionally, a blood pressure is recommended if not recently evaluated.

Recommendations include an "antigen search" for sources of reactive hepatopathy (including testing for Leptospirosis), followed by a course of empirical antibiotics and hepatic nutraceuticals, with monitoring of ALT for improvement. If improvement is noted, antibiotics should be continued until liver enzymes either normalize or plateau (recheck every 2-3 weeks); however, if improvement is not noted and/or enzyme increase progresses, antibiotics should not be continued long term and sampling, beginning with a FNA of

the liver if patient's coagulation status is appropriate or progressing to a liver biopsy (including copper level assessment) may ultimately be warranted.



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.

**Beth Johnson, DVM DACVIM**

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