

**DATE PRESENTING CLINICAL SIGNS**

11/9/22 Weakness, lethargy. Hx OA. Muscle wasting generalized mild to mod weakness. Hx mild azotemia, significant progression recently.

**PATIENT**

Anthony Abdmajid  
 Current Medications: Galliprant 100 mg PO SID  
 Lab Results: BUN 99, Creat 5.5, SDMA 32, Phos 6.4. UA 1.011, inactive sediment  
 Date of Previous IntraPet Ultrasound: No previous.  
 Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: Not requested.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****BREED**

English Shepherd

**Urinary System**

The urinary bladder is moderately 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.

**SEX**

Neutered Male

The area of the prostate is examined without evident pathology.

**AGE**

1/25/11

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of mineral or infarcts observed. Mild pyelectasia present in the right kidney. The right kidney measures 6.81 cm. The left kidney measures 6.94 cm.

**WEIGHT**

69 Pounds

**Adrenal Glands**

The right adrenal gland is normal in size (2.99 cm long x 0.70 cm at the cranial pole and 0.65 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**INTERPRETED BY**

Beth Johnson, DVM  
 DACVIM

The left adrenal gland is normal in size (2.95 cm long x 0.78 cm at the cranial pole and 0.86 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**IMAGING PERFORMED BY**

Rachel Brillhart RDMS

**Spleen**

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal.

**HOSPITAL NAME**

Timonium AH

**Liver**

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. McIntyre

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**INVOICE**

42672

**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) 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 (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

### ***Free Abdomen***

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

## **ULTRASONOGRAPHIC FINDINGS**

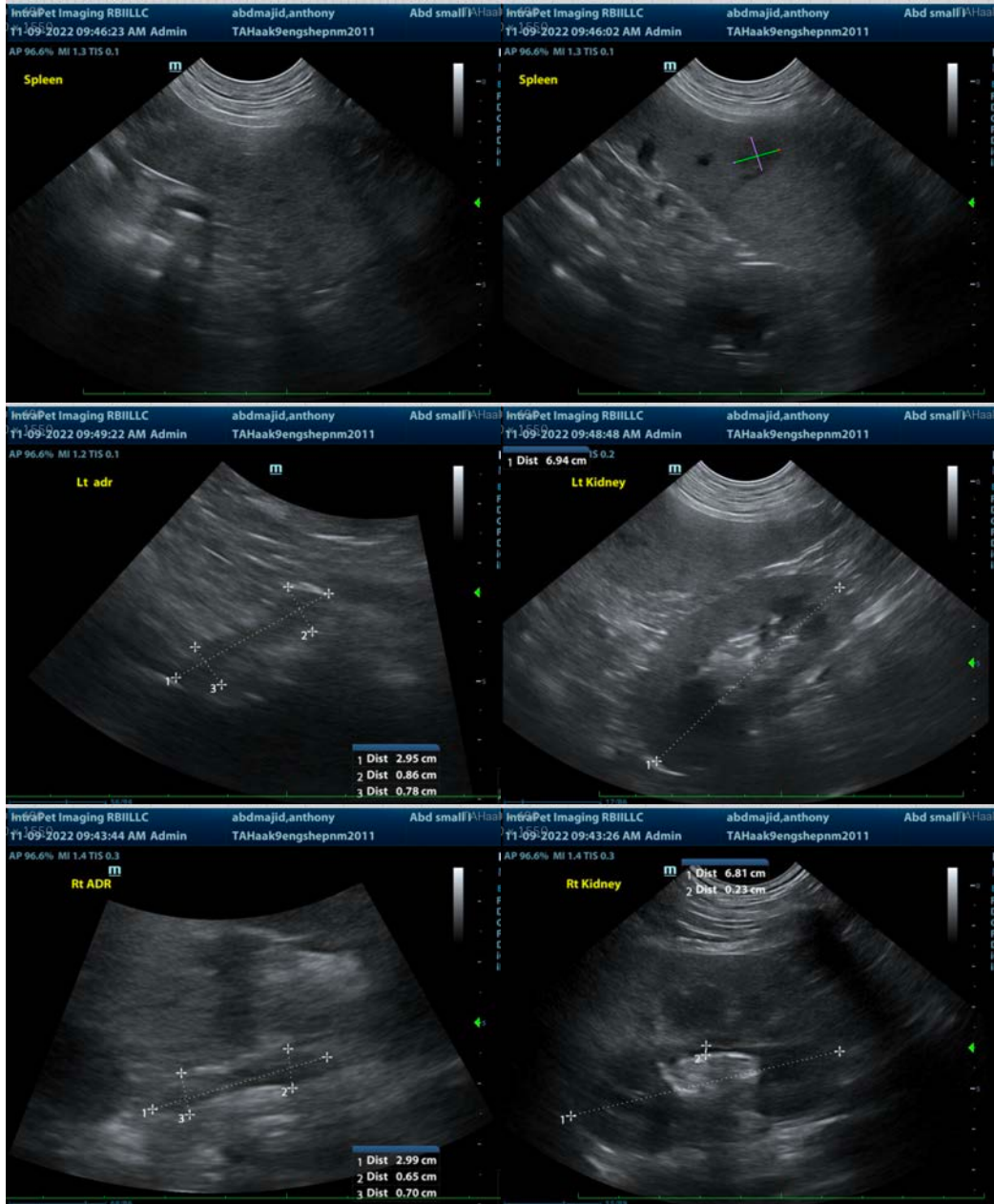
- **Heterogenous Liver** – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- **Splenic micronodular hyperplasia pattern** – This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out.
- **Age related kidney changes with mild right kidney pyelectasia** – Differentials for the right renal pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

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

There is not an ultrasonographically obvious reason to explain this patient's acutely progressive azotemia. The appearance of the liver and spleen both trend towards the benign. However, fine needle aspirates could be considered if patient's coagulation status is appropriate. Beyond that, recommendations include evaluation for causes of acute on chronic kidney disease such as a urinary tract infection/pyelonephritis and/or Leptospirosis versus medication or toxin, dehydration, etc. Given this recent progression, if not recently evaluated, a blood pressure is recommended.

A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

In the meantime, diuresis is recommended in addition to supportive/symptomatic care of clinical signs +/- broad-spectrum antibiotics, etc., until kidney values plateau, if possible.





**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. 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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