

**DATE PRESENTING CLINICAL SIGNS**

4.10.23 Dx'd with renal disease for about 1 year. Owner was concerned, Jessie started refusing food. Generally a very good eater. Recent weight loss. BW done at RDVM on Friday BUN 147 Cr 7.8 SDMA >100 Kidney diet for dry and canned. Referral from RDVM Went to agility trial today.

**PATIENT**

Jesse Coles Current Medications: Omeprazole, Cerenia, Gabapentin, Trazodone, Benazapril.  
 Lab Results: PCV 21%. USG 1.012. 1+ proteinuria, inactive sediment. BUN went from 147 to 125 after 24 hrs IV fluids; Creat went from 7.8 to 9.6 after 24 hrs IV fluids. Low Colony Urine culture pending. BP 180 mmHg.

**SPECIES**

Canine Date of Previous IntraPet Ultrasound: No previous.  
 Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: STAT requested.

**BREED**

Imaging Performed By: Rachel Brilhart, RDMS.

Cocker Spaniel

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

Intact Male

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

**AGE**

1/19/2010

The prostate is enlarged (4.02 cm in width) with a slightly irregular shape. Parenchyma is largely isoechoic relative to the spleen and heterogenous in appearance, with numerous, varying-sized, ill-defined cystic areas throughout the gland. The prostatic urethra is not overtly dilated.

**INTERPRETED BY**

The left kidney is normal in size (4.36 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Moderate pyelectasia is present (0.56 cm in the longitudinal plane). Slight proximal hydroureter is also present (0.22 cm in diameter). There is no obvious evidence of nephroliths or infarcts. Renal vasculature is normal.

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**HOSPITAL NAME**

Animal EH

The right kidney is normal in size (5.09 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Mild to moderate pyelectasia is present (0.29 cm in the longitudinal plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**REFERRING VET**

Dr. Ruby

**Adrenal Glands**

The left adrenal gland is normal in size (0.72 cm at cranial pole) (0.65 cm at caudal pole) (1.91 cm in length) with a normal shape and 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**

12730

The right adrenal gland is in normal size (0.57 cm at cranial pole) (0.47 cm at caudal pole) (2.31 cm in length) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is subjectively normal in size (0.94 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is slightly mottled in appearance. A few small, ill-defined septated cystic lesions are observed throughout the organ (the largest measuring 0.90 cm in diameter). Splenic

vasculature appears normal with no evidence of thrombosis.

### **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 lumen is moderately distended. The wall is thin and smooth. A moderate amount of mostly gravity-dependent, echogenic debris is observed within the lumen. There is also some debris adhered to the luminal surface. 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 is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

### **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**

The testicles are subjectively normal in size and symmetrical with homogenous parenchyma. No obvious pathology is observed.

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass. There is no obvious evidence of pleural effusion in the visible window.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- Bilateral chronic nonspecific age-related renal changes. Acute-on-chronic renal failure is suspected. The bilateral pyelectasia could be consistent with pyelonephritis, age-related remodeling, IV fluid therapy, PU/PD, or some combination thereof. The mild left hydroureter may be secondary to a small ureteral stricture, stone, tumor, other.

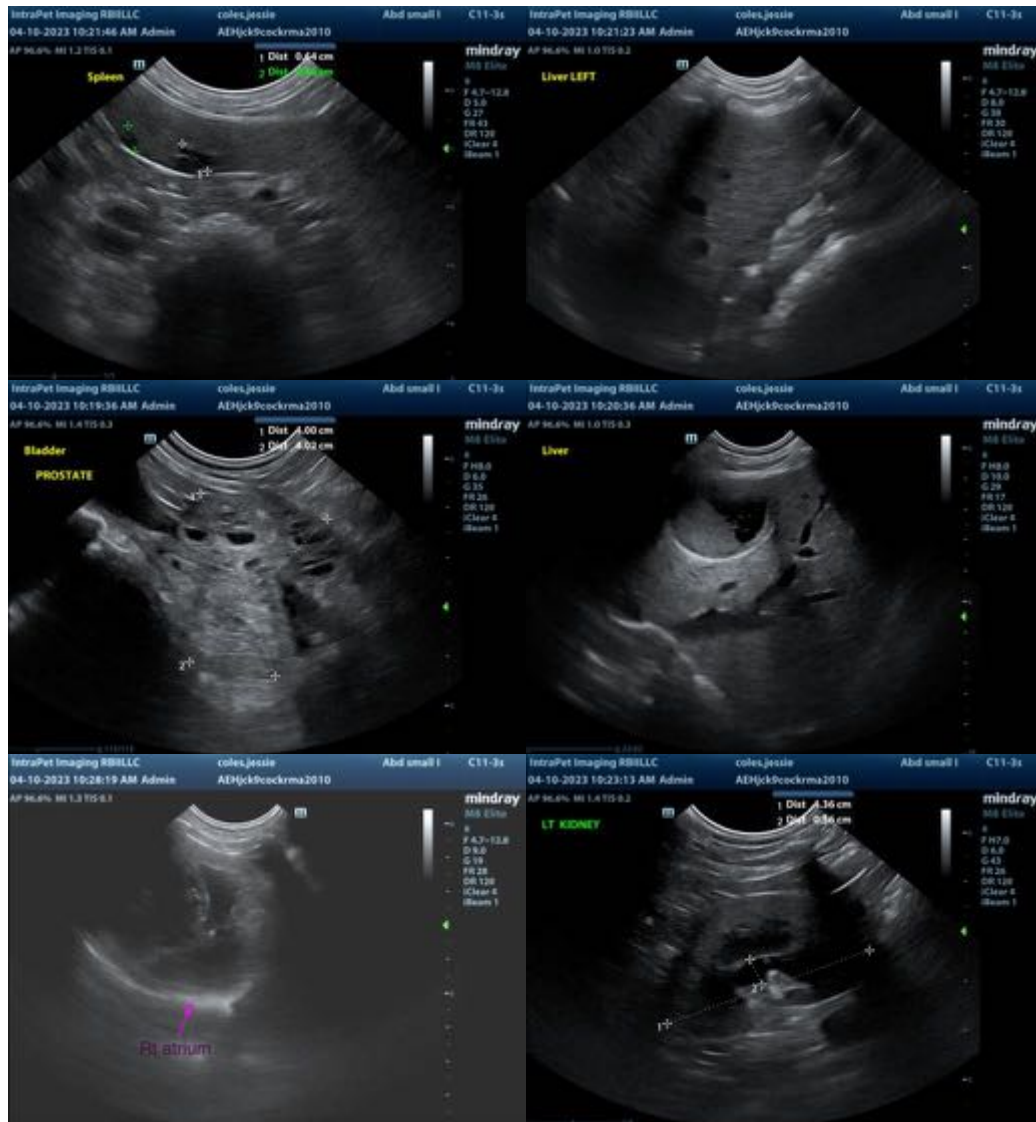
### **Secondary Findings**

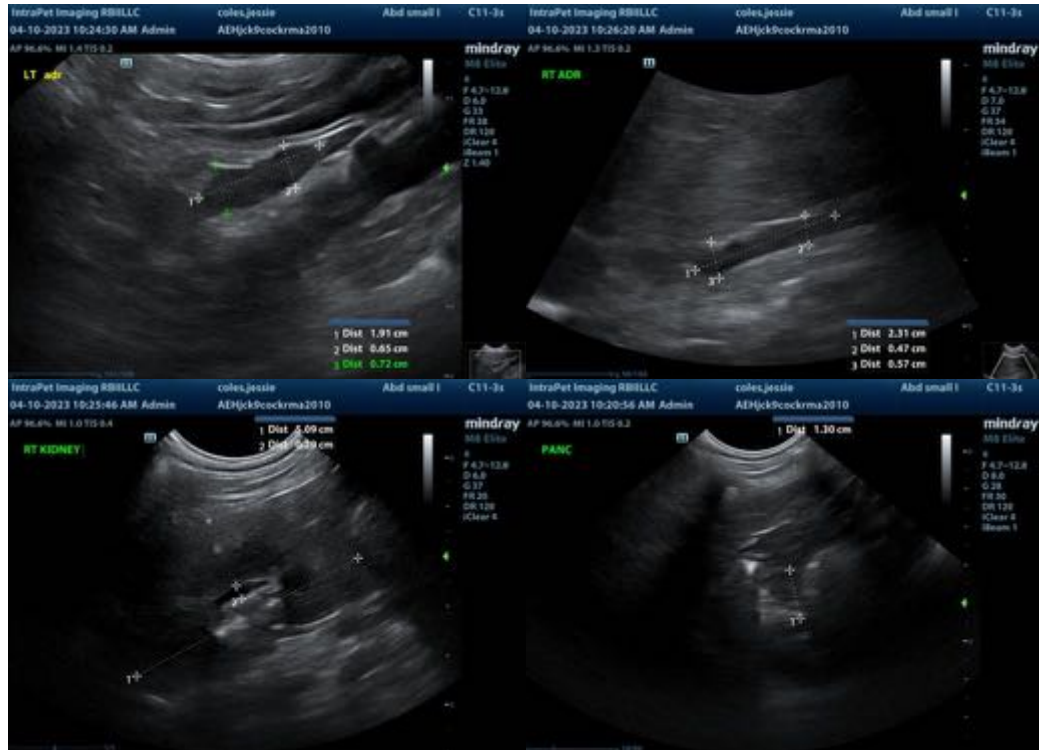
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- Gall bladder debris – non-mucocele
- The cystic lesions in the spleen trend toward the benign with a possibility of an emerging vascular tumor.

- The prostate changes are consistent with cystic benign prostatic hyperplasia.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the patient's age, three-view thoracic radiographs are recommended to assess cardiopulmonary status, particularly if IV fluid diuresis is to be continued. Other recommendations include the following:
  1. UPC (if proteinuria persists in the absence of infection)
  2. Anti-hypertensive medication (i.e., amlodipine) if systemic hypertension is persistent
  3. Continued IV fluid diuresis and symptomatic care with daily monitoring of the patient's kidney values to assess for progression of the azotemia.





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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