



**PATIENT PRESENTING CLINICAL SIGNS**

Coco Johnston 1 month history of PU/PD and decreased appetite. USG 1.027, no proteinuria, inactive sediment, globulins 5.3. Remainder of chem panel WNL. CBC shows anemia, hematocrit 26.5%. WBC 24,000 with a lymphocytosis and monocytosis. Has had history of urinary tract infections and diabetes insipidus. Patient is on Desmopressin.

**SPECIES**

Canine

**BREED**

Toy poodle mix

**SEX**

Male, neutered

**AGE**

12 Yrs. 2 months

**WEIGHT**

20.4 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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

**HOSPITAL NAME**

Meadowlawn AS

**REFERRING VET**

Dr. Bryson Gale

**INVOICE**

14542

**DATE**

2/7/23

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*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.

The prostate is normal in size (1.02 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (5.26 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (3.83 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Moderate pyelectasia is present (0.56 cm in the longitudinal plane). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is borderline enlarged (0.65 cm at cranial pole) (0.67 cm at caudal pole); 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.

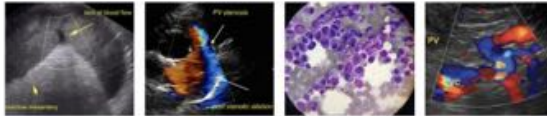
The right adrenal gland is normal size (0.41 cm at cranial pole) (0.50 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

*Spleen*

The spleen is normal in size (1.31 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 normal to slightly prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly mottled in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.



## PATIENT

Coco Johnston

## SPECIES

Canine

## BREED

Toy poodle mix

## SEX

Male, neutered

## AGE

12 Yrs. 2 months

## WEIGHT

20.4 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

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

## HOSPITAL NAME

Meadowlawn AS

## REFERRING VET

Dr. Bryson Gale

## INVOICE

14542

**DATE**  
2/7/23

## *Gastrointestinal*

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is minimally distended with ingesta. 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 segmentally dilated with chyme (mild). 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:

- Bilateral chronic renal changes with dystrophic mineralization. The bilateral pyelectasia may be secondary to pyelonephritis, age-related remodeling, PU/PD or some combination thereof.

### 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.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the CBC changes, the following are recommended:
  1. Reticulocyte count
  2. Clinical pathology review
  3. Slide agglutination test
  4. A comprehensive tick panel, including PCR and serology (submission to North Carolina State University's Vector Borne Disease Diagnostic Lab) is recommended. <https://cvm.ncsu.edu/research/labs/clinical-sciences/vector-borne-disease/>.



**PATIENT**

Coco Johnston

5. Depending on the results of the above diagnostics, a bone marrow aspirate may be warranted.

**SPECIES**

Canine

• Regarding the PU/PD, consider the following:

1. Urine culture and sensitivity
2. Adjustment of the Desmopressin dose, if urine culture is negative.

**BREED**

Toy poodle mix

• Given the patient's inappetence, also consider thoracic radiographs to assess for occult disease in the chest.

**SEX**

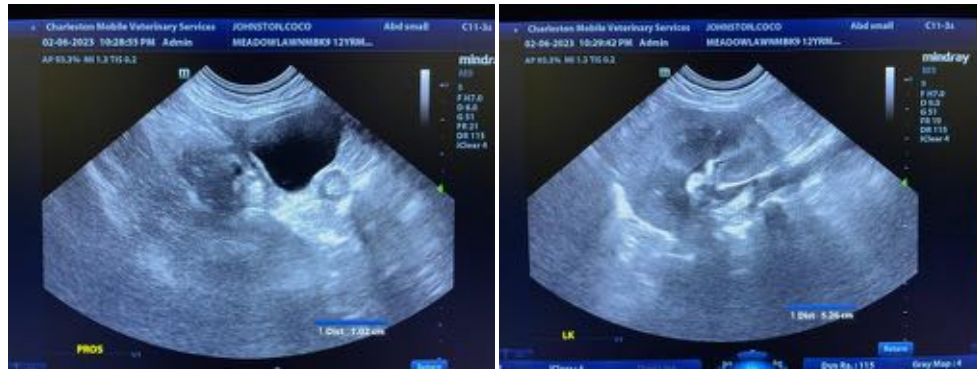
Male, neutered

**AGE**

12 Yrs. 2 months

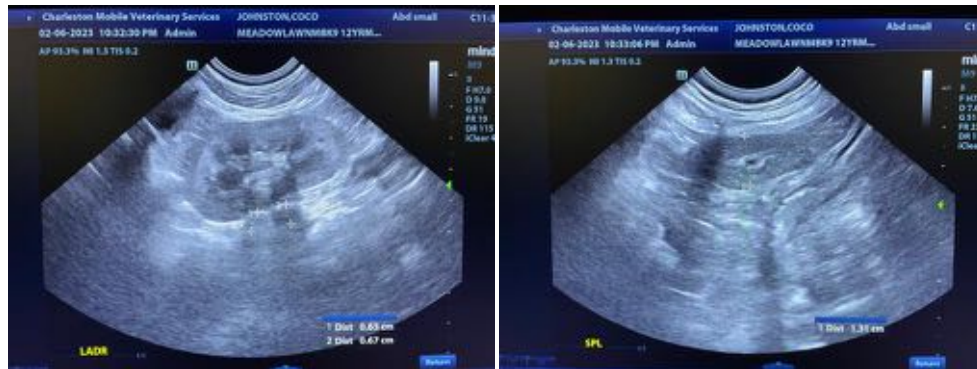
**WEIGHT**

20.4 lbs.



**INTERPRETED BY**

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

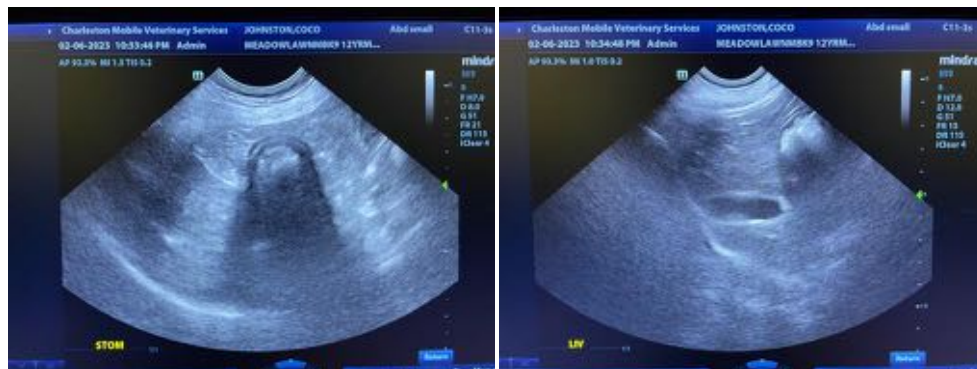


**IMAGING PERFORMED BY**

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

**HOSPITAL NAME**

Meadowlawn AS



**REFERRING VET**

Dr. Bryson Gale

**INVOICE**

14542

**DATE**

2/7/23



**PATIENT**

Coco Johnston

**SPECIES**

Canine

**BREED**

Toy poodle mix

**SEX**

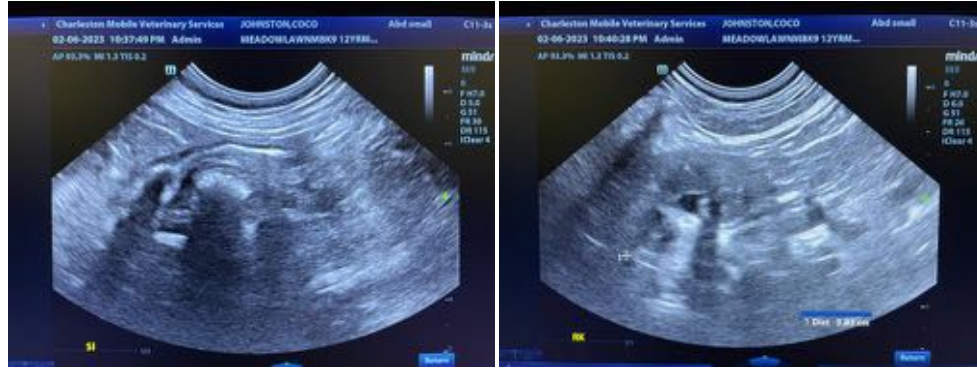
Male, neutered

**AGE**

12 Yrs. 2 months

**WEIGHT**

20.4 lbs.



**INTERPRETED BY**

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

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.

**IMAGING PERFORMED BY**

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

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
[info@SonoPath.com](mailto:info@SonoPath.com)

**HOSPITAL NAME**

Meadowlawn AS

**REFERRING VET**

Dr. Bryson Gale

**INVOICE**

14542

**DATE**

2/7/23