**DATE PRESENTING CLINICAL SIGNS**

12.26.22 Presented for exam for straining to defecate, defecating small soft amounts. Decreased appetite and vomiting in yard.

**PATIENT**

Dewey Bird

Current Medications: Cerenia 160mg ¼ SID.  
 Radiographs: Possible prostate mass.  
 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.

**SPECIES**

Canine

**BREED**

Retriever Mix

**SEX**

Intact Male

**AGE**

12/20/2010

**WEIGHT**

78.4 lbs

**INTERPRETED BY**

Andrea Nicastro, DMV,  
 Diplomate DACVIM  
 (Small Animal  
 Internal Medicine)

**HOSPITAL NAME**

Animal Clinic of  
 Southgate

**REFERRING VET**

Dr. Alexander

**INVOICE**

11932

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

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is enlarged (6.06 cm in width) with slightly irregular peripheral contours. The parenchyma is diffusely heterogenous with numerous varying-sized irregular parenchymal cysts. The prostatic urethra is not overtly dilated. Surrounding mesentery is hyperechoic.

The left kidney is normal size (7.86 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is prominent to enlarged (8.08 cm in length) with slightly irregular peripheral contours. Severe hydronephrosis is present, with only a thin rim of cortex remaining. The right ureter is dilated (up to 0.64 cm) and can be followed distally to the level of the level of the caudal urinary bladder/prostate. There is no obvious evidence of intraluminal obstruction.

**Adrenal Glands**

The left adrenal gland is enlarged at the cranial pole and normal in size at the caudal pole (1.47cm at cranial pole) (0.67 cm at caudal pole) (3.23 cm in length). A 2.16 x 1.53 cm hyperechoic to heterogenous nodule/mass is observed at the cranial to mid-aspect. Glandular echogenicity and detail at the caudal aspect are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.67 cm at cranial pole) (0.78 cm at caudal pole) (2.57 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 normal in size (1.91 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 subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen. A 0.91 cm cyst is observed on the left side. The remaining parenchyma is

homogenous. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is mildly distended. The wall is normal in thickness with a small to moderate amount of aggregated, partially dependent to suspended sludge observed within the lumen. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The gastric lumen is mildly to moderately 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. 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. 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***

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

### ***Other***

The testicles are subjectively normal in size (left: 3.57 x 1.63 cm) (right: 3.48 x 1.47 cm) with normal shapes, echogenicity and homogenous parenchyma.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The prostate changes are most consistent with benign prostatic hyperplasia with parenchymal cysts. Concurrent prostatitis is also possible. Infiltrative neoplasia (i.e., adenocarcinoma) is also a differential, but considered less likely.
- Severe right hydronephrosis/hydroureter. Possible causes include distal ureteral stricture, stone, tumor, other obstructive lesion (i.e., compression from prostatomegaly)
- Left adrenal nodule/mass. Differentials include a benign process (i.e., excessive nodular hyperplasia) versus emerging neoplasia (i.e., adenoma, adenocarcinoma, pheochromocytoma).

### **Secondary Findings**

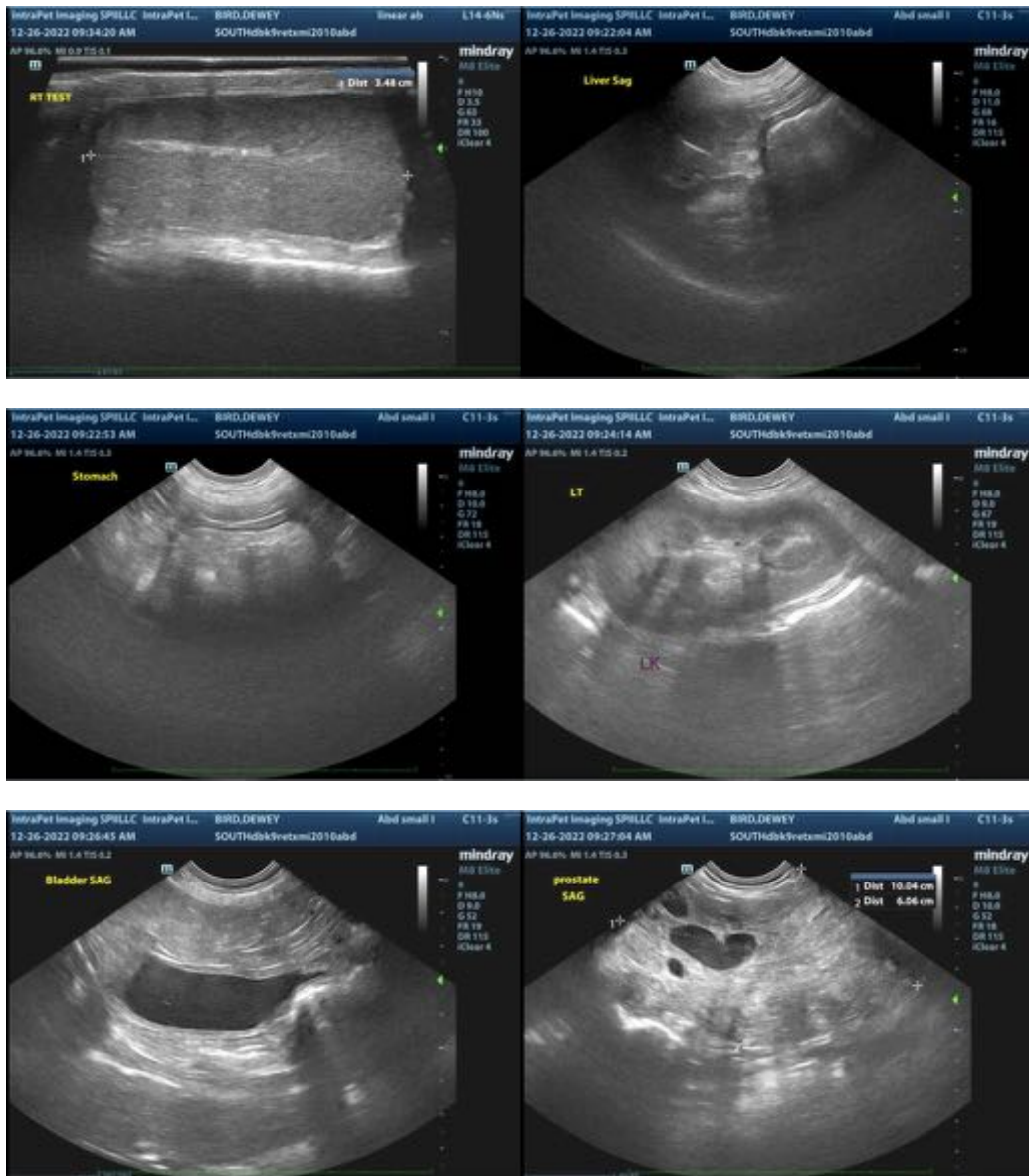
- Left hepatic cyst
- The gall bladder debris could be consistent with cholestasis, fasting, or an emerging mucocele.

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

- Given the patient's clinical history, a urine culture and sensitivity as well as castration is recommended. While awaiting urine culture and results, initiation of broad-spectrum antibiotics (i.e., fluoroquinolone) is recommended as empirical treatment for prostatitis. If the patient's clinical signs do not improve with castration/antibiotics treatment, consider the following:
  1. Fine needle aspirate of the prostate

2. Urine BRAF test to assess for lower urinary tract neoplasia

- Regarding the right hydronephrosis/hydroureter, consider consultation with a board-certified surgeon to discuss a right nephrectomy, as this kidney is almost certainly non-functional and a potential source of infection.
- Regarding the left adrenal nodule/mass, consider the following:
  1. Three-view thoracic radiographs to assess for pulmonary metastatic disease
  2. Baseline blood pressure measurement
  3. Further testing for a functional tumor (i.e., urine/blood catecholamine levels, low-dose dexamethasone suppression test)





**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.

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