

**DATE PRESENTING CLINICAL SIGNS**

10/5/21 Presented for a few weeks of straining to urinate. Not increased frequency but when goes to bathroom seems to strain and urinate small amounts. Owner notes 3-4 pound weight loss since last exam at previous vet 3-4 months ago. On exam small bladder and grade 2/6 heart murmur.

**PATIENT**

Freckles Schuler

Current Medications: None

**SPECIES**

Canine

Lab Results: mild hematuria and slight increase in WBC in urine without bacteria. USG 1.036

**BREED**

Mixed Breed

Date of Previous IntraPet Ultrasound: No previous

**SEX**

Female Spayed

Sedation: Sedation not required.

Stat Report: Stat report not requested.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

2011

**Urinary System**

The urinary bladder is mildly distended. The wall in the caudodorsal aspect (trigone area) and extending into the urethra is diffusely thickened (up to 0.83 cm) and slightly irregular. There are foci of mineralization that appear to be within the thickened walls although mineralized sand within the urethral lumen cannot be excluded. A few tiny cystic calculi are also seen. The remaining bladder wall is appropriate for the level of repletion.

**WEIGHT**

20 lbs.

**INTERPRETED BY**

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

The left kidney is normal in size (4.54 cm in length) with a slightly irregular shape. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A cortical infarct is suspected at the caudal pole. There is no evidence of pyelectasia or hydronephrosis.

The right kidney is normal in size (4.77 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. There is no evidence of pyelectasia, infarcts or hydronephrosis.

**HOSPITAL NAME**

Fullerton

**Adrenal Glands**

The left adrenal gland is normal size (0.49 cm at cranial pole) (0.54 cm at caudal pole) (2.00 cm in length); 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.

**REFERRING VET**

Dr. Unger

The right adrenal gland is normal size (0.65 cm at cranial pole) (0.57 cm at caudal pole) (2.10 cm in length) with a slightly irregular shape. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**INVOICE**

12283

**Spleen**

The spleen is normal in size (1.67 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. The parenchyma is slightly hypoechoic relative to the spleen. A 2.13 x 1.49 cm nodule/mass is observed in the deep left liver at the caudal aspect. The lesion causes capsular expansion. The remaining parenchyma is subtly heterogeneous in appearance. Vascular 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. Luminal contents are anechoic. 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 mildly 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 not dilated. 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 right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

### *Free Abdomen*

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A 1.16 x 0.86 cm hypoechoic round sublumbar lymph node is visualized.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- The caudodorsal bladder and urethral wall changes are concerning for infiltrative neoplasia (i.e., transitional cell carcinoma) with foci of mineralization. However, cystitis/urethritis secondary to cystic calculi cannot be completely excluded.
- The sublumbar lymphadenopathy may represent infiltrative neoplasia, reactive lymphadenitis or lymphoid hyperplasia.
- The hepatic nodule is non-specific and could be a benign process (i.e., regenerative nodule). Alternatively, neoplasia (i.e., primary hepatic tumor, metastatic lesion) is possible.

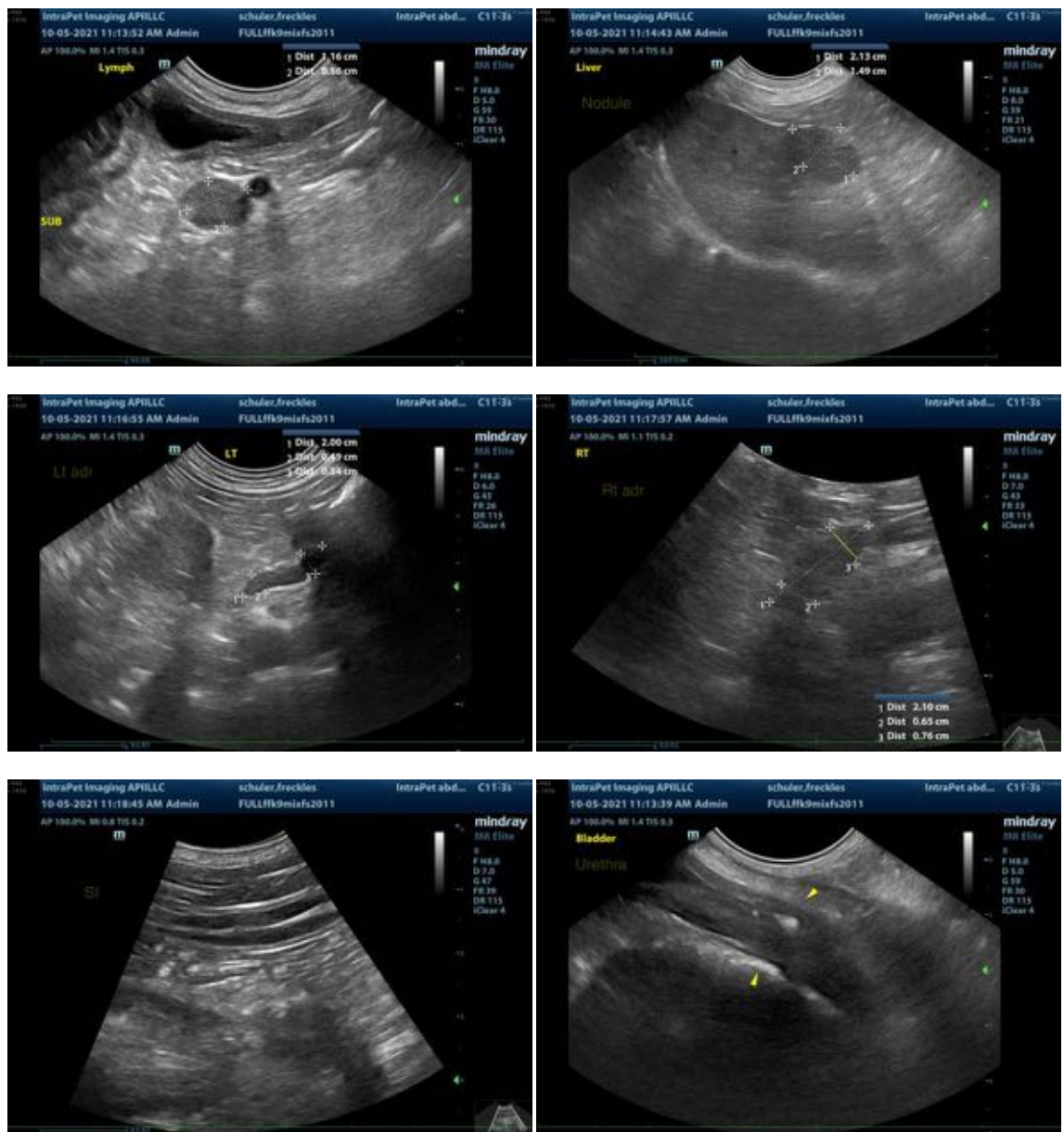
### **Secondary Findings:**

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Bilateral age-related renal changes with dystrophic mineralization and a left cortical infarct.

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

- A urine BRAF test is recommended to further screen for lower urinary tract neoplasia. Also consider a urine culture and sensitivity. However, cystocentesis should NOT be performed so as to avoid potential seeding of the abdomen with neoplastic cells.

- For further evaluation of the lung nodules, the following diagnostics can be considered:
  - Thoracic CT scan
  - Ultrasound-guided fine needle aspirate, if the nodules are located at the periphery. Alternatively, a surgical biopsy can be considered.
- A fine needle aspirate of the hepatic nodule could also be considered if accessible and if clotting status is appropriate. A 25-gauge needle should be used.





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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)  
Andrea.nicastro@sonopath.com