

**DATE**

7/29/22

**PRESENTING CLINICAL SIGNS**

History: Follow up ultrasound to evaluate urinary bladder for possible disease progression (changes found on previous ultrasound indicated concern for thickening of cystourethral junction and possible neoplasia).

**PATIENT**Princess Periwinkle  
Critzler

Current Medications: Meloxicam 0.1 mg (0.025 mg/kg) Q24 hours, Gabapentin 25 mg (6.6 mg/kg) BID, Methimazole 5 mg (1.3 mg/kg) BID, Chlorpheniramine 2 mg (0.53 mg/kg) BID PRN

Lab Results: 6/1/22 - Elevated ALT (196 U/L - 27-158 U/L normal), isosthenuria, hematuria, rods

Date of Previous IntraPet Ultrasound: 6/5/22. See attached.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

11/1/2007

**WEIGHT**

8.33 Pounds

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

The **urinary bladder** is essentially normalized in this patient. The bladder wall and cystourethral junction were unremarkable. Only minor distal urethral thickening was present. The urethra measured 0.28 cm. The wall thickness measured up 0.15 cm, essentially normalized. A trace amount of bladder sand was noted, measuring 1.6 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some minor age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Slight pinpoint mineralizations noted, nonobstructive. The left kidney measured 3.05 cm. The right kidney measured 3.5 cm.

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**Adrenal Glands**

The **right adrenal gland** was visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.4 cm.

**HOSPITAL NAME**

Hickory VH

The **left adrenal gland** was slightly enlarged, measuring 0.69 cm.

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

**REFERRING VET**

Dr. McNesby

**INVOICE**

16605

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic

lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

### ***Gastrointestinal***

The **gastrointestinal tract** revealed minor variable thickening and echogenic submucosal changes most consistent with low grade end result of chronic GI disease such as IBD and may be related to malassimilation of nutrients if any weight loss is present. No obvious neoplastic patterns were noted and luminal content as unremarkable.

### ***Pancreas***

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

### ***Free Abdomen***

Slight epigastric **lymph node** enlargement noted, measuring 5.0 mm.

## **ULTRASONOGRAPHIC FINDINGS**

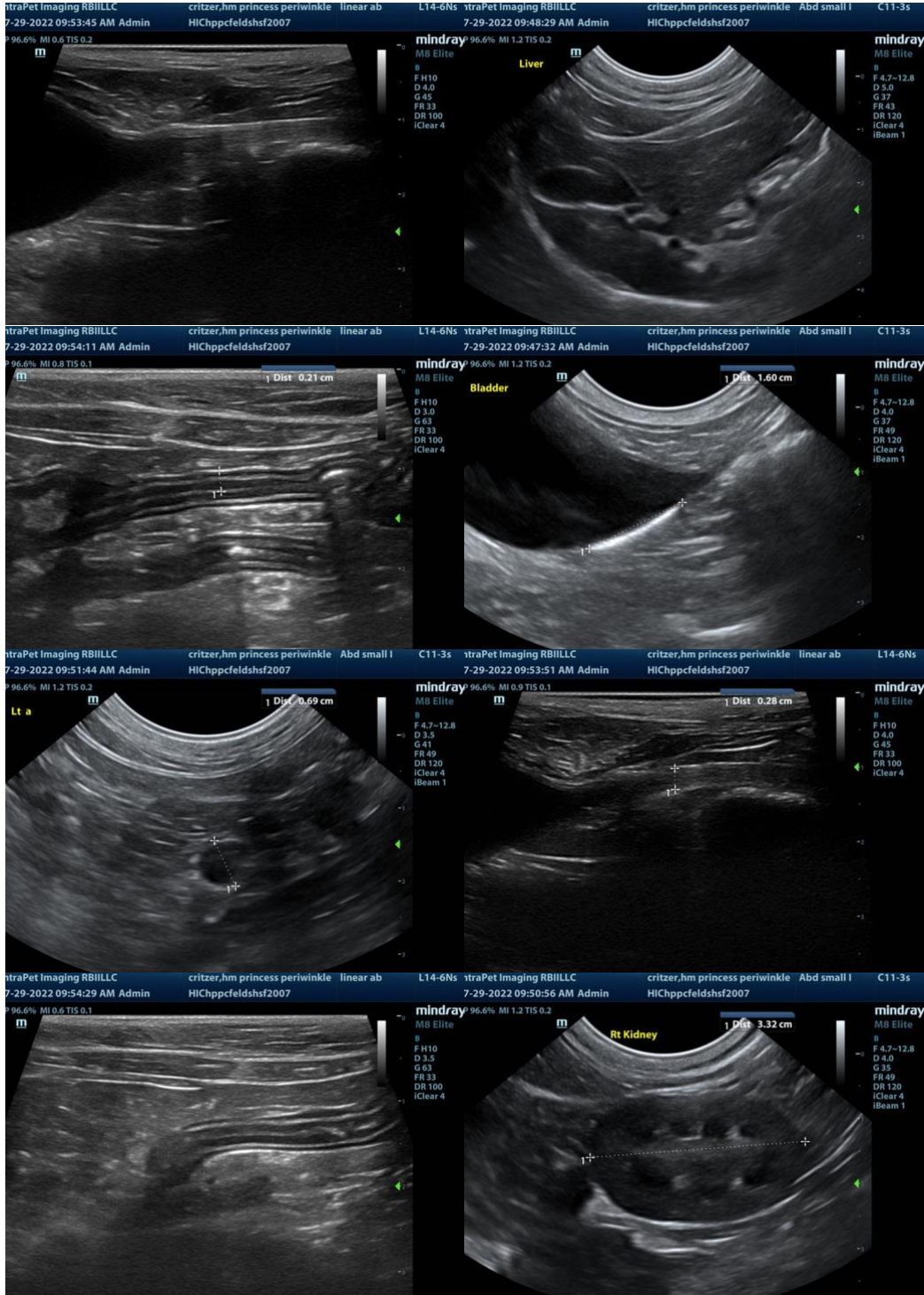
- Minor bladder sand, significantly improved wall and urethral thickening. Essentially normalized to slightly thickened distal urethra.
- Slightly enlarged epigastric lymph node
- Age-related GI changes
- Slightly enlarged left adrenal gland
- Age-related renal changes with slight pinpoint mineralizations

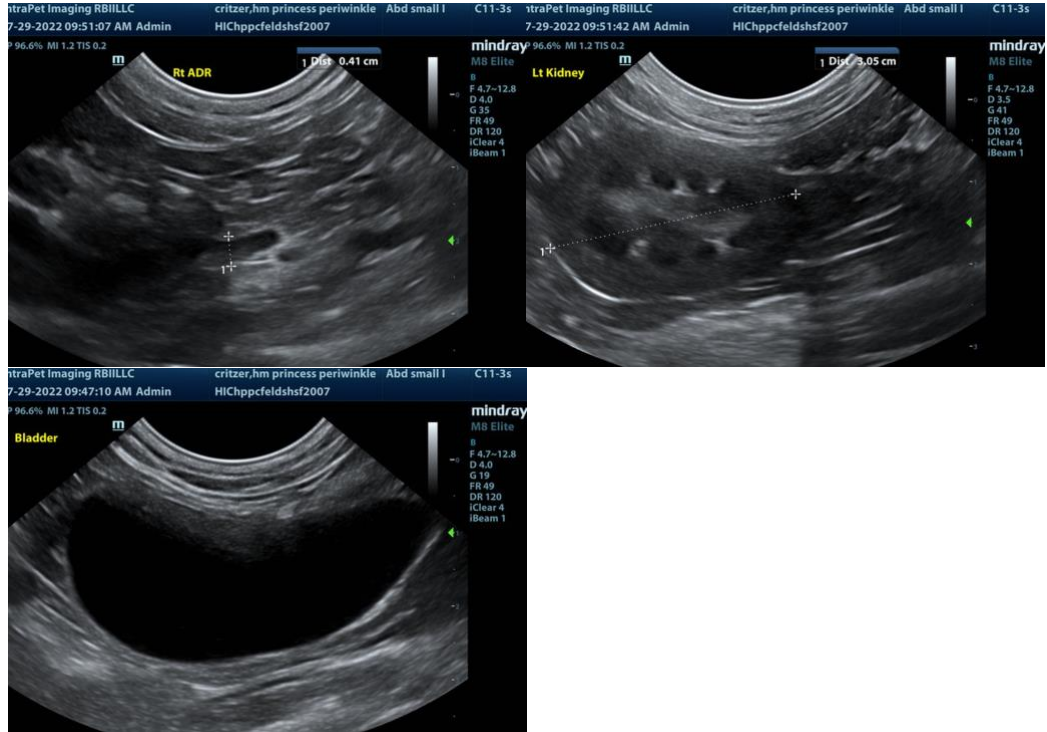
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend medical management for the bladder sand and residual UTI, until complete clearing and lack of sediment is present. The hematuria is likely owing to sand passage in this patient. Aggressive IV fluid protocol to liberate the bladder sand, as well as enhance antibiotic penetration could also be considered. Recheck sonogram in one month, regarding sand presentation. If sodium to potassium ratios are altered, then work up for Conn's syndrome would warranted, given the left adrenal enlargement, however, this may be a normal variant.

### **Chronic UTI Protocol**

I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.





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.

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