



**PATIENT PRESENTING CLINICAL SIGNS**

Olive Baird

**SPECIES**

Feline

**BREED**

DLH

**SEX**

Spayed Female

History: Pt has history of recurrent UTIs. Pt has been on royal canin Ur So since pt passed gritty sandy stone material in April of last year. Pt has passed no other signs of stones or crystals since starting UR SO. In August of 22 pt had recurrent issues and cultured out a highly resistant E.coli only susceptible to imipenem, amikacin, ciprofloxacin, enrofloxacin, marbofloxacin, nitrofurantion, chloramphenicol and trim/sulfa. treated with 1 week of trim/sulfa then follows with with 20 days of pradoflaxacin. Pt was having what seemed like UT incontinence issues about 1 month later, so repeated so pt has done well for about 3 months. O said this episode is the worst its been. Collected urine sample via cysto for culture and bladder walls appeared very abnormal. After collecting sample pt began leaking bloody urine in room so rec'd ultrasound.

Abnormal PE/Chem/CBC/UA Results: Pt is painful on palpation of abdomen around bladder. O said pts behavior has changed more recently and swatting and getting mad at visitors in their house, which is abnormal at home. Sent off urine culture at time of ultrasound. Repeat rads showed no stones at time of ultrasound.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**AGE** *Urinary System*

2 Years 11 Months

**WEIGHT**

10.9

The urinary bladder was nondistended to subnormal in size owing to lack of urine distention. Generalized to variable thickened homogenous urinary bladder walls were primarily noted in the apical aspect of the urinary bladder with regional apical urinary bladder wall measuring up to 1.5 cm in width. Minimal anechoic urine with subjective minor hyperechoic luminal sand. Concurrent mildly thickened dorsal and ventral trigone was noted, extending into the cystourethral junction. The urethra was overtly normal in structure and tone to a depth of 2.0 cm. No evidence of pericyclic inflammation or free fluid was noted. No evidence of medial iliac or sublumbar lymphadenopathy.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. A hyperechoic corticomedullary band consistent with a discrete medullary rim sign was present. This is a nonspecific finding seen in both normal and abnormal kidneys. It may be associated interstitial renal disease, hypercalcemia, tubular necrosis, lymphoma, and FIP. However, it is a nonspecific finding. Both kidneys measured 4.0 cm in length.

**IMAGING PERFORMED BY**

Jonathan Moss

**Adrenal Glands**

**HOSPITAL NAME**

Harvest Hills VH

The left and right adrenal glands were not overtly visualized. No overt pathology in the area of the left or right adrenal glands.

**Spleen**

**REFERRING VET**

Jonathan Moss

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

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**Liver**

**DATE**

2/23/23

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were



**PATIENT**

normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Olive Baird

**Gastrointestinal**

**SPECIES**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

Feline

**BREED**

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

DLH

Normal visible colon wall layers were present with apparent formed feces in lumen.

**SEX**

**Pancreas**

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Spayed Female

**AGE**

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

2 Years 11 Months

**WEIGHT**

**ULTRASONOGRAPHIC FINDINGS**

10.9

- Non-distended urinary bladder, exhibiting diffuse to variable wall thickening, exhibiting primarily homogenous mural echogenicity, subjective minor hyperechoic luminal sand
- Bilateral subtle renal medullary rim sign- nonspecific

**INTERPRETED BY**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

Sonographically, the generalized yet variable thickened urinary bladder walls are suggestive of chronic idiopathic or possible infectious cystitis. Given the patient history, the possibility of infiltrative urinary bladder neoplasia, given the patient age and lack of regional lymphadenopathy, may be considered a less likely differential diagnosis yet cannot be definitively excluded. Ideally, given this presentation, urinary bladder wall sampling for histopathology, as well as tissue culture and sensitivity to assess for embedded infection would be ideal. Additional structural or congenital abnormalities were not definitively evident. Contrast urography advanced imaging could be considered to rule out nonobvious structural or congenital abnormality as a possible underlying contributing factor. Correlation with pending urine culture and sensitivity is suggested with appropriate antibiotic protocol, based on culture and sensitivity results. Concurrent empirical idiopathic cystitis therapy, which may include urinary diet, behavioral modification, anti-inflammatory/antianxiety medications, etc., given the patients demeanor may prove beneficial.

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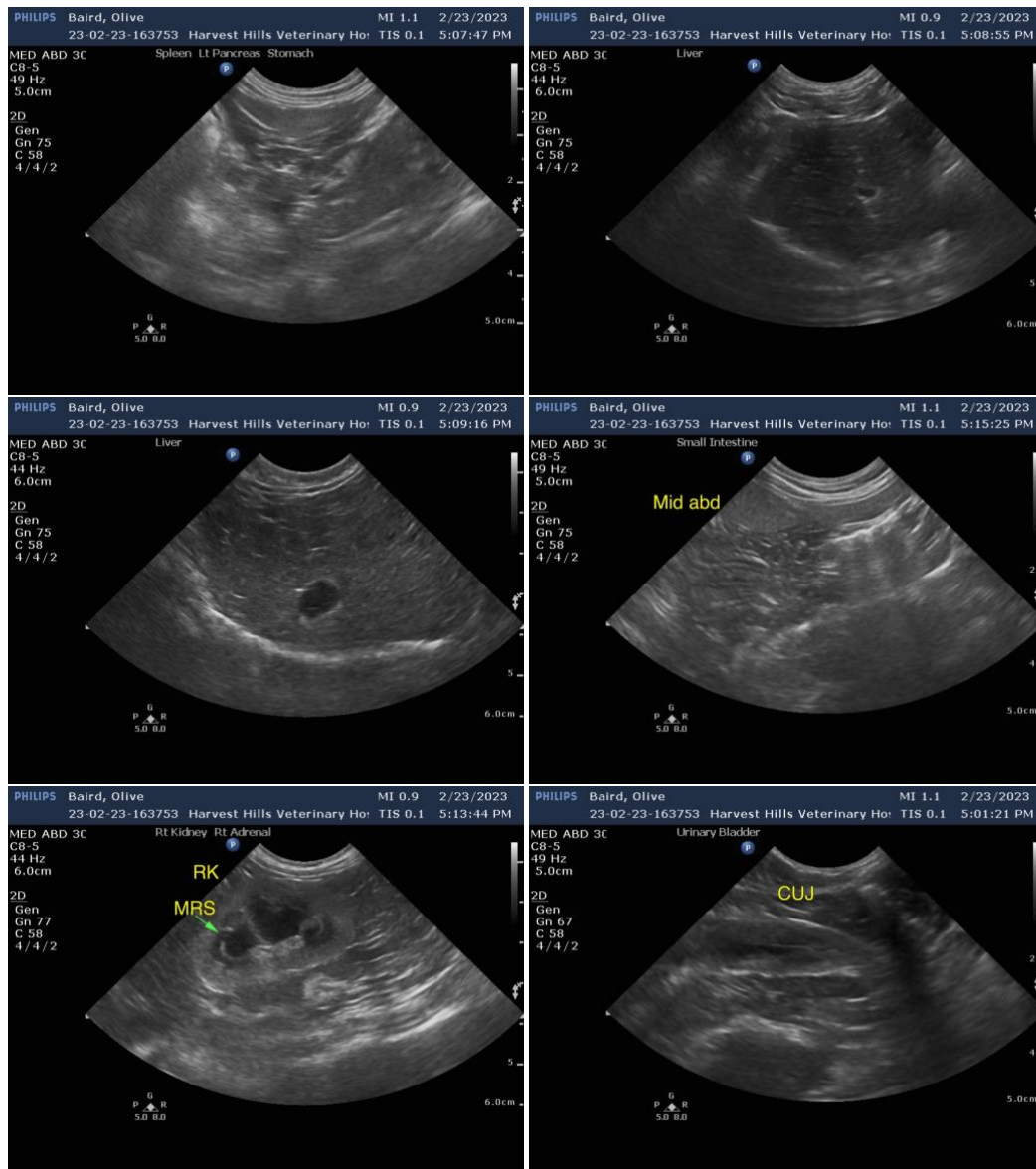
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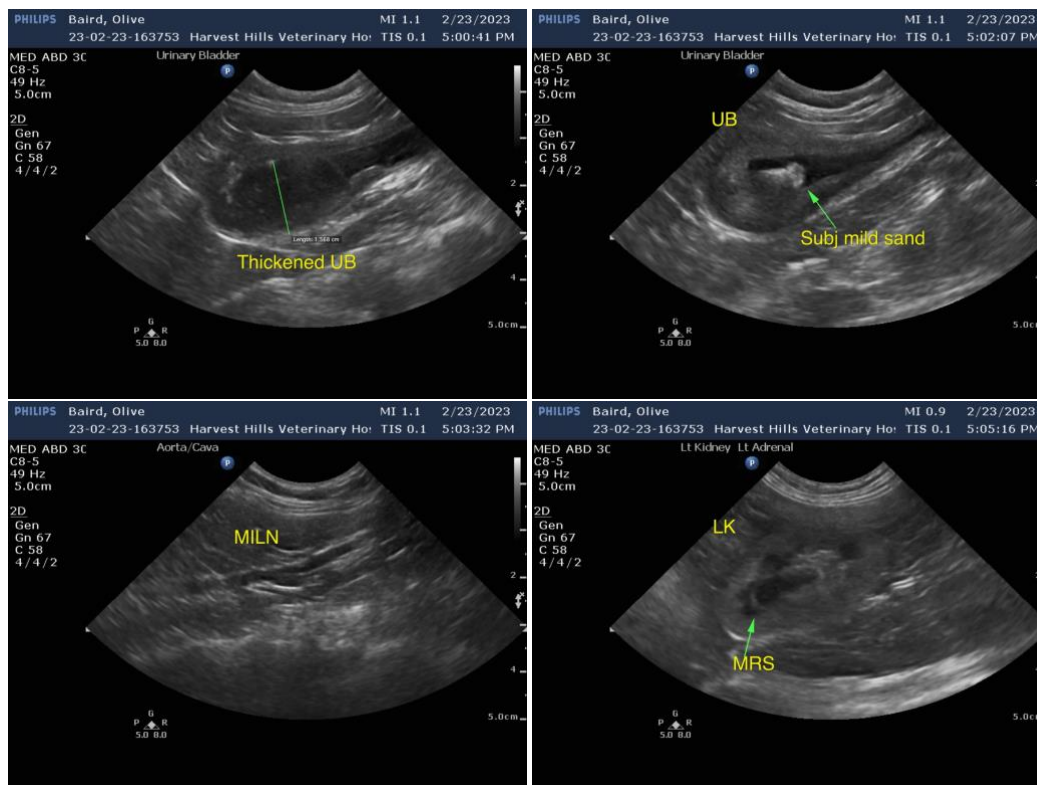
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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