



**PATIENT**

Molly Smith

**SPECIES**

Canine

**BREED**

Lab X

**SEX**

Spayed Female

**AGE**

10.5 Years

**WEIGHT**

64 Pounds

**PRESENTING CLINICAL SIGNS**

Molly is a ten year old, FS, Lab mix with a two week history of pollakiuria, good appetite, no vomiting or diarrhea. No PU/PD was reported. She has had episodes of UTIs in the past year. Molly is stressed by vet visits and takes trazodone and gabapentin to reduce her anxiety before appointments. On exam on 10/16/21, Molly was tense on caudal abdominal palpation. Free catch urinalysis that day showed increased wbc, increased rbc, pH=5, USG=1.036, no proteinuria. CBC, Chemistry, T4, cystocentesis for UA/urine culture was collected today.  
Abnormal PE/Chem/CBC/UA Results: see above

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder was normal in overall size and tone. Sectorial ventral to ventral apical urinary bladder thickening noted, exhibiting primarily homogeneous mural echogenicity similar to adjacent non-thickened urinary bladder wall. Ventral urinary bladder wall measured up to 1.2 cm in width. Minor particulate urinary bladder sediment was present along with focal, potentially adhered mineral along the apical luminal surface. Proximal urethral structure and tone was normal to a depth of 3.0 cm.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. No evidence of overt pyelonephritis in either kidney. The left kidney measured 6.1 cm. The right kidney measured 7.5 cm. Pinpoint areas of medullary mineralization were present in both kidneys.

The area of the aortic trifurcation was free of pathology. No evidence of medial iliac or sublumbar lymphadenopathy.

**Adrenal Glands**

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 3.0 cm length x 0.94 cm at the caudal pole. The right adrenal gland measured 2.8 cm length x 0.91 cm at the caudal pole. Potential for minor adenomatous adrenal changes possible. No evidence of adrenal tumors.

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were 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.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Jennifer Todd

**HOSPITAL NAME**

Lambs Gap AH

**REFERRING VET**

Dr. Lindsey Knouse

**INVOICE**

26358

**DATE**

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**PATIENT**

**Gastrointestinal**

Molly Smith

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained echogenic, nonshadowing ingesta most consistent with post prandial presentation without signs of ileus, obstruction or foreign material.

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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.

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

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**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.

**AGE**

10.5 Years

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Sectorial ventral to ventral apical thickened urinary bladder, potential for focally adhered apical luminal mineral
- Mild chronic renal changes, no overt pyelonephritis

**WEIGHT**

64 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The urinary bladder is suggestive of suspected chronic cystitis, and potential for focally adhered luminal mineral. This patient may potentially be passing small amounts of mineral from the kidneys into the urinary bladder. Neoplastic criteria cannot be definitively excluded, yet is thought less likely given the sonographic presentation. Screening BRAF assay may be considered. However, if negative, this does not completely rule out the potential for emerging neoplasia. Cytospin cytology or free catch urine sample could also be considered to assess for atypical epithelial cells. Pending urine culture and sensitivity, conservative therapy for chronic cystitis with sonographic monitoring for evidence of progressive mural thickening may be considered. Urinary bladder biopsies for histopathology +/- culture and sensitivity would be required for definitive diagnosis.

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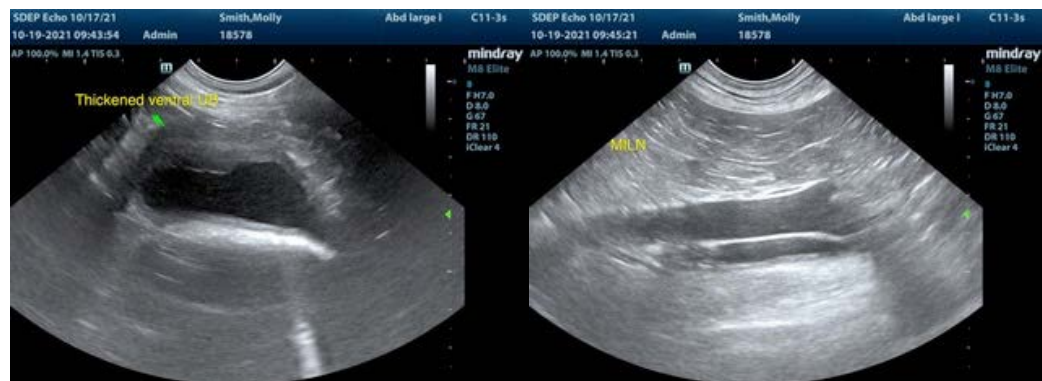
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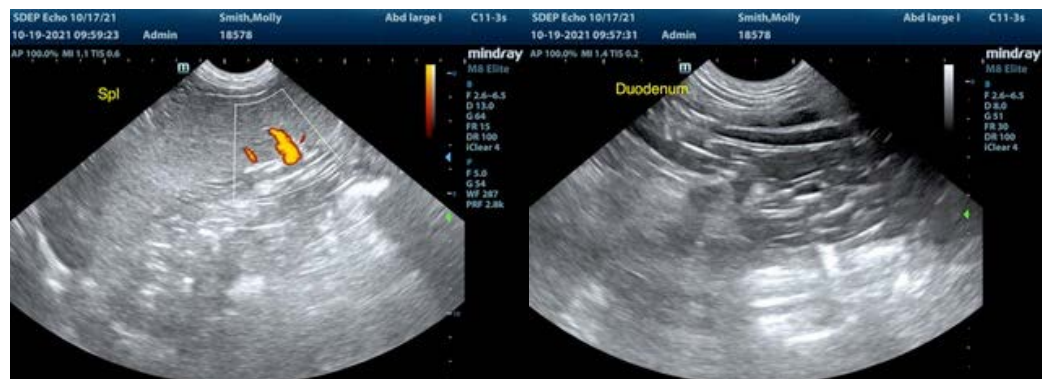
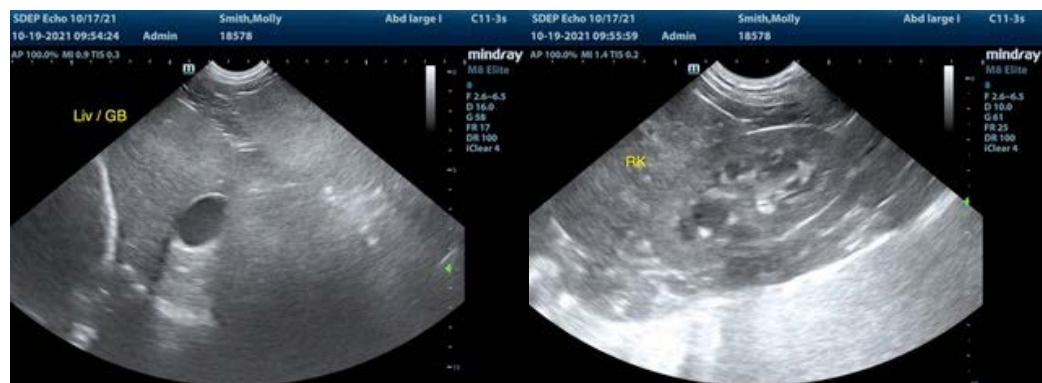
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Canine

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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