



**PATIENT**

Daisy Shover

**SPECIES**

Canine

**BREED**

Shetland Sheepdog

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

34 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Jennifer Todd

**HOSPITAL NAME**

Lambs Gap AH

**REFERRING VET**

Dr. Laura Campbell

**INVOICE**

33408

**DATE**

12/14/21

**PRESENTING CLINICAL SIGNS**

Daisy is an eight year old, FS, Sheltie with a history of chronic, intermittent hematuria. She was presented most recently on 11/24/21 with a one week history of her owner seeing blood drops around the house. During her exam, Daisy urinated bloody urine. Amoxicillin and gabapentin were prescribed and recheck UA planned. On 12/8/21, recheck UA showed rbc>50 phpf and wbc=8 phpf.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

A sessile based mass with asymmetrical margination was present, appearing to primarily arise from the dorsal wall and extending into the urinary bladder lumen. The mass measured approximately 2.0 cm x 1.5 cm. The parenchyma of the mass was heterogeneous with pinpoint hyperechoic foci, suggestive of pinpoint areas of mineralization. Color doppler evaluation of the mass confirmed blood flow within the mass. The overall bladder was mildly subnormal in size owing to lack of urine distention, which prohibited further evaluation of the apical and ventral urinary bladder walls. Potential for concurrent mild apical and ventral urinary bladder wall thickening, although not definitive. The urethra was normal in structure and tone to a depth of 3.0 cm.

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

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 pyelectasia. The left kidney measured 6.4 cm. The right kidney measured 5.5 cm.

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.7 cm in length x 0.90 cm at the caudal pole. The right adrenal gland measured 2.5 cm length x 0.66 cm at the caudal pole.

**Spleen**

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, well-defined, symmetrical, small, non-expansive echogenic nodules were present in primarily the medial parenchyma and adjacent to the hilus. 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 or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

**Liver**

The liver was mildly enlarged in size with generalized mild increased hepatic parenchyma echogenicity with intermittent, discreetly hypoechoic intraparenchymal nodules. Example of nodule measured 1.9 cm diameter. The gallbladder was non distended in size with mild, echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

**Gastrointestinal**

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.



**PATIENT**

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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.

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

**SPECIES**

Canine

**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.

**BREED**

Shetland Sheepdog

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

Spayed Female

- Urinary bladder mass exhibiting suspected pinpoint mineralization
- Age related kidneys, no evidence of pyelectasia
- Mild hepatomegaly with intermittent, discretely hypoechoic intraparenchymal nodules
- Mild gallbladder debris
- Benign splenic nodules – likely consistent with benign myelolipomas

**AGE**

8 Years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The urinary bladder mass is most concerning for neoplastic criteria (i.e., transitional cell carcinoma) with significant dorsal cystitis to atypical polypoid cystitis possible, yet thought less likely. Screening BRAF assay could be considered. However, if negative, biopsy of the urinary bladder wall would be required for definitive diagnosis.

**WEIGHT**

34 Pounds

The appearance of the liver is non-specific with considerations including vacuolar hepatitis, cholangiohepatitis with intermittent areas of subtle hematopoiesis or nodular/regenerative hyperplasia. Correlation with hepatic enzyme levels recommended. The potential for hepatic primary or metastatic neoplastic nodules is thought less likely, yet cannot be definitively excluded.

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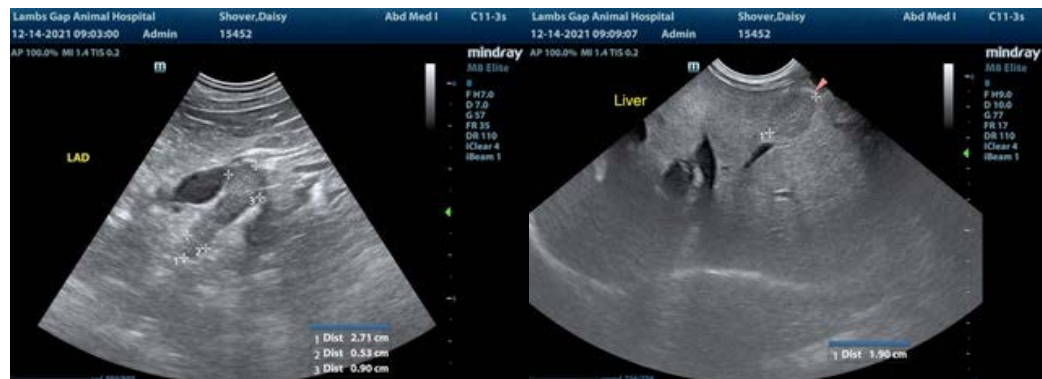
Assuming normal clotting status, ultrasound guided FNA of the hepatic parenchyma and discreet nodule (if accessible) could be considered for screening cytology and further clarification. No evidence of regional metastasis (i.e., sublumbar or medial iliac lymphadenopathy associated with the urinary bladder mass).

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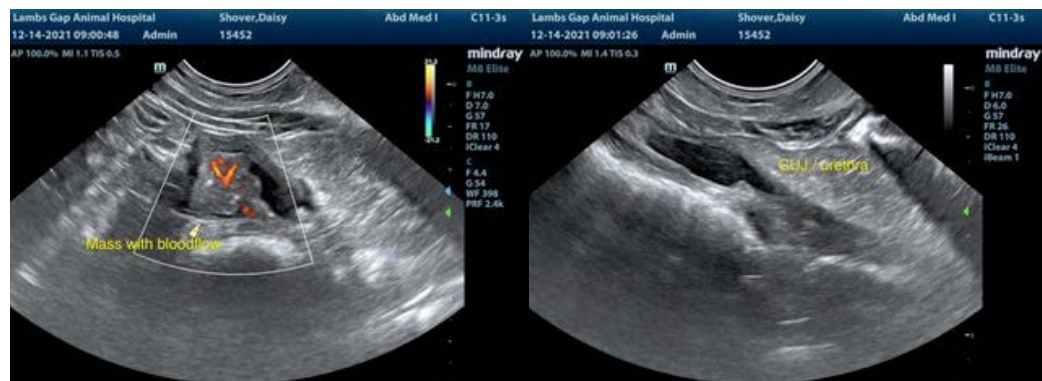
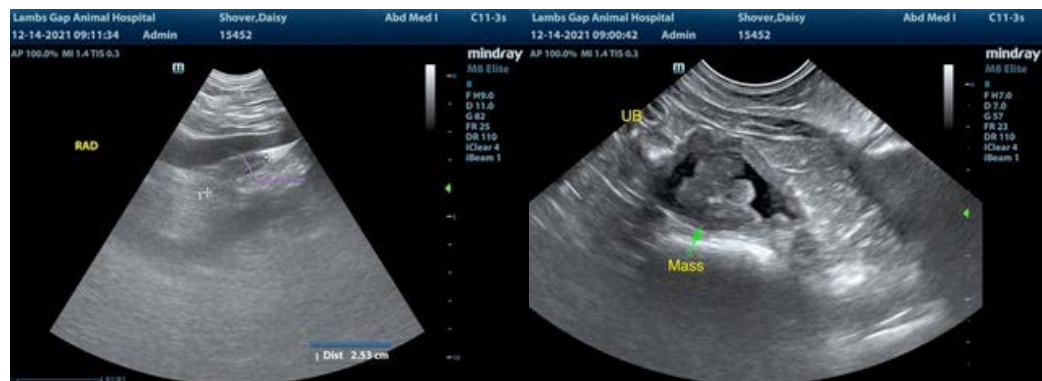
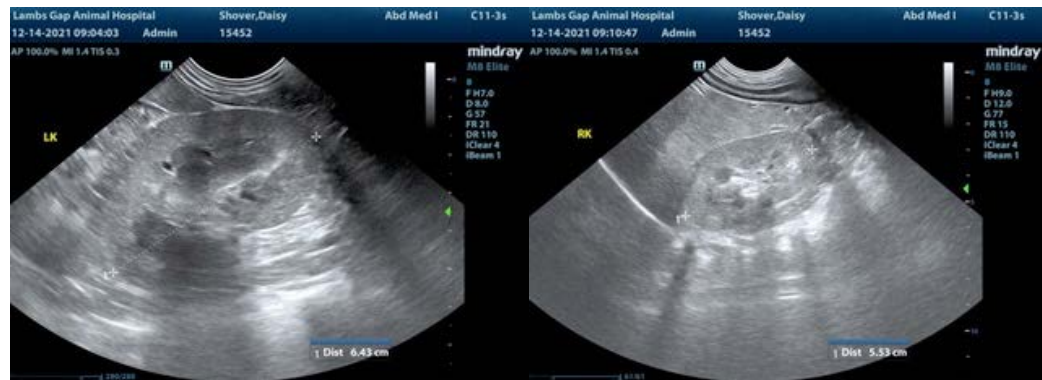
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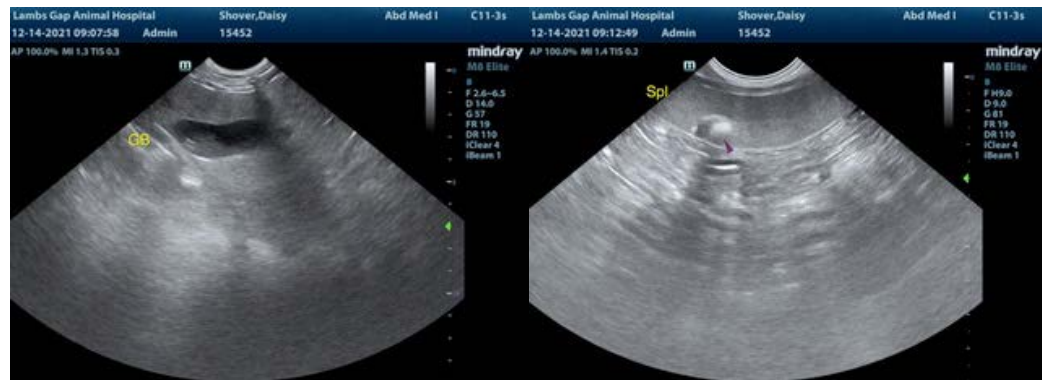
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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