

**PATIENT**

Sassy Bolton

**SPECIES**

Canine

**BREED**

Goldendoodle

**SEX**

FS

**AGE**

12 years

**WEIGHT**

23 lbs.

**INTERPRETED BY**R. McKenzie Daniel,  
DVM, DABVP (Canine  
and Feline)**IMAGING  
PERFORMED BY**

Rachel Runnells, RVT

**HOSPITAL NAME**

SVS Imaging KC

**REFERRING VET**

Dr. Susan Mervin

**INVOICE**

14043

**DATE**

6/8/22

**PRESENTING CLINICAL SIGNS**

Mild weight loss.

Abnormal PE/Chem/CBC/UA Results: PE-dorsal muscle loss, thin/bony. ALT-454, Cholesterol-404, GGT-17

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

The urinary bladder was normal in size and tone with mild thickening in the area of the urinary bladder neck subjectively extending mildly or with concurrent proximal urethral thickening. Potential for pinpoint hyperechoic foci potentially indicative of mineralization associated with the urinary bladder neck and proximal urethral thickening was noted. The proximal urethra potentially measured 0.97 cm in diameter. Mild nondependent particulate sediment was present in the bladder.

The area of the aortic trifurcation was free of pathology.

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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. Areas of mild medullary mineral were present. A moderately sized, thinly-walled cyst was present in the area of the cranial lateral left kidney, measuring 4.4 cm in diameter. The left kidney cyst contained anechoic fluid. Intermittent small cortical cysts were present in the right kidney. No evidence of pelvic dilation was present. The left kidney measured 5.6 cm in length. The right kidney measured 5.9 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.60 cm width at the caudal pole and 0.60 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.40 cm width at the caudal pole and 0.45 cm width at the cranial pole.

**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, though no evidence of neoplastic criteria was noted.

**Liver/ Gallbladder**

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. Intermittent nondisruptive, well-demarcated, uniform hyperechoic intraparenchymal nodules were present with an example measuring 0.76 cm in diameter. The hepatic

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and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with subtly prominent to hyperechoic gallbladder walls. The gallbladder contained anechoic content with moderate nonorganized subjectively mobile luminal debris. No overt evidence of peripheral gallbladder inflammation was noted. The common bile duct was normal.

***Gastrointestinal***

The stomach presented intact wall layering with a normal wall layer ratio. Minor retained echogenic fluid was present. The ventral gastric body wall width measured 0.30 cm.

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. The jejunum wall width measured 0.36 cm. The duodenum wall width measured 0.36 cm.

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

***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 were evident.

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Mildly thickened urinary bladder neck and proximal urethra exhibiting potential for pinpoint hyperechoic foci, mild nondependent particulate urinary bladder sediment
- Bilateral chronic renal changes with moderately sized left kidney cortical cyst and minor right kidney cortical cysts
- Hepatopathy exhibiting parenchymal remodeling and intermittent subjectively benign intraparenchymal nodules
- Moderate nonorganized gallbladder debris - suspect mild cholecystitis (non-mucocele)
- Overtly normal gastrointestinal tract with minor retained gastric fluid

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The mildly thickened urinary bladder neck and proximal urethra is nonspecific with considerations including possible focal cystitis / urethritis, while the possibility of emerging neoplastic criteria, i.e., transitional cell carcinoma is of concern. Screening BRAF Assay could be considered. Urine C/S ideally on a sterile urine sample, given the urinary bladder sediment, is suggested. Sonographic monitoring of this area with an Initial recheck in 4 weeks would be a more conservative approach.

Although nonspecific, the hepatic and gallbladder presentation is suggestive of potential cholangiohepatitis, given the ALT elevation and presence of gallbladder debris. Ultrasound-guided FNA of the liver could be considered for screening cytology, assuming normal clotting status, primarily to assess for evidence of inflammatory cells. No overt evidence of hepatic or hepatobiliary neoplastic



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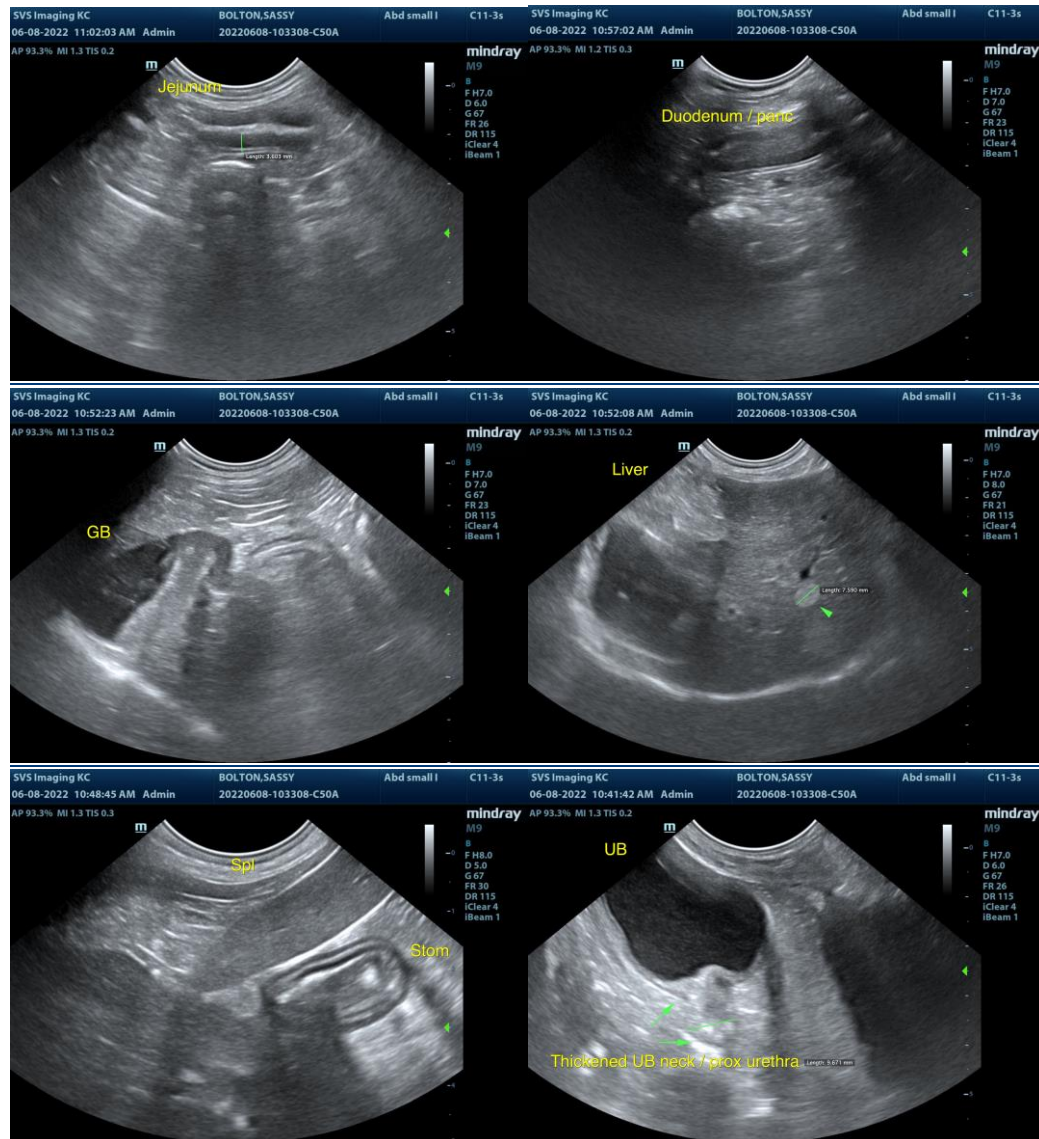
14043

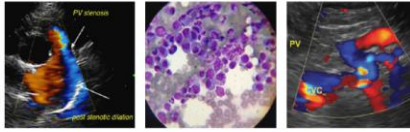
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criteria was noted. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.

A GI panel to include PLI/TLI/Cobalamin/Folate as well as three view chest radiographs and neurological / musculoskeletal examination are recommended to assess for or rule out occult disease which may cause weight loss.





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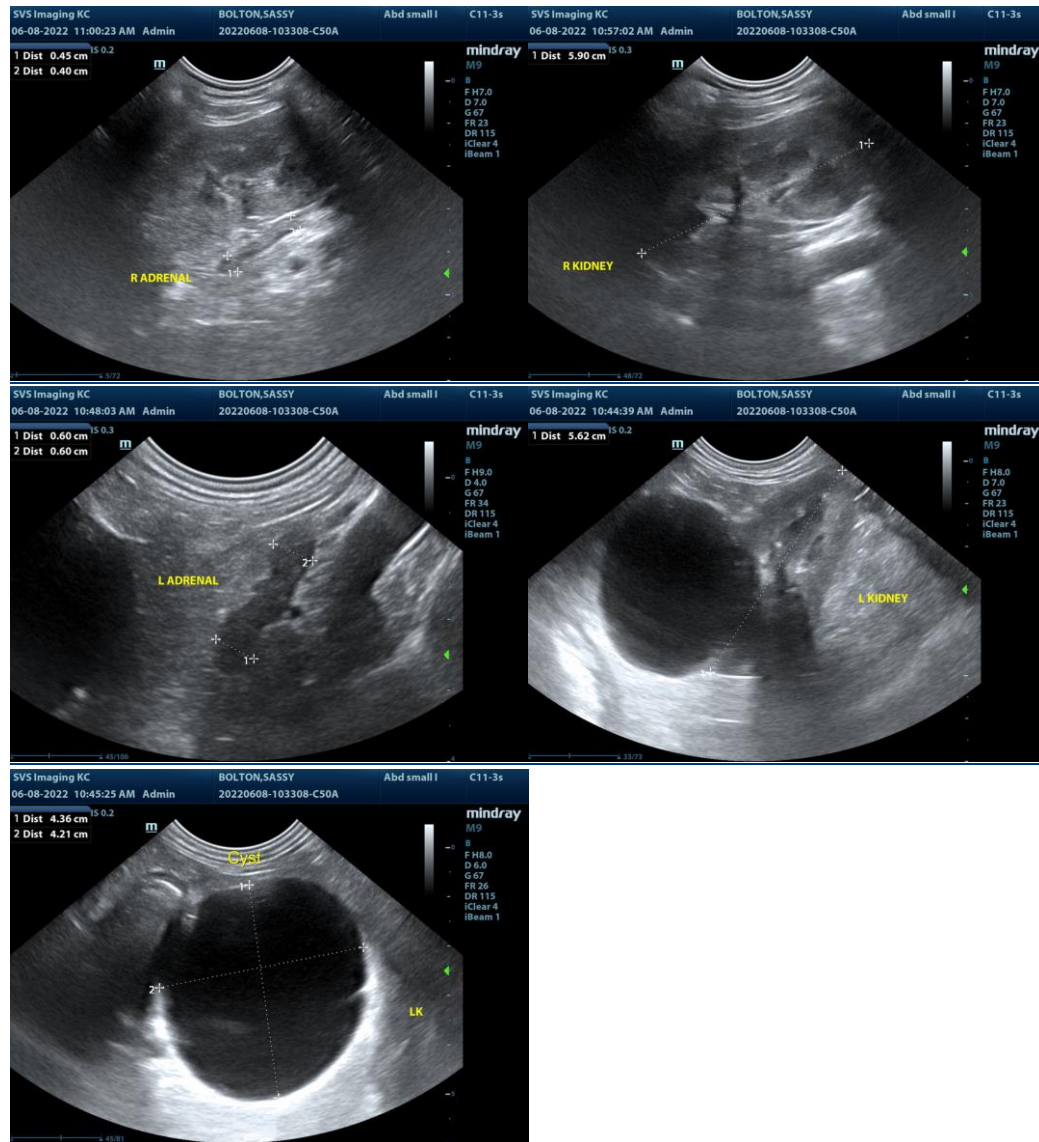
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com