



**PATIENT**

Lady Belanger

**SPECIES**

Canine

**BREED**

Pug

**SEX**

F/S

**AGE**

13

**WEIGHT**

8 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Cambrian AH

**REFERRING VET**

Dr. Sharma

**INVOICE**

14510

**DATE**

8-4-22

**PRESENTING CLINICAL SIGNS**

2 month history of recurrent hematuria.

Abnormal PE/Chem/CBC/UA Results: RBC in urine USG 1025

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder was mildly distended in size at the time of the ultrasound with subjective normal tone. The urinary bladder walls were sonographically normal without evidence of Inflammatory or neoplastic criteria. Anechoic urine was present with no sediment or calculi. The urethra was overtly normal in structure and tone to a depth of 2.0 cm.

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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of left or right pyelectasia was present. Focal areas of medullary mineral to potential small nonobstructive renoliths were present in both kidneys. The left kidney measured 4.3 cm in length. The right kidney measured 5.0 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 0.41 cm width at the caudal pole and 0.47 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 0.44 cm width at the caudal pole and 0.85 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.

**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. The hepatic and portal vasculature were normal in appearance without signs of congestion. Potential focal hypoechoic parenchyma to discrete intraparenchymal nodule was noted dorsal to the gallbladder. This nodule was subjectively benign with potential for focal discrete area of nodular to regenerative hyperplasia, or hematopoiesis. No overt evidence of hepatic neoplastic criteria.



<b>PATIENT</b>	The gallbladder was non-distended in size containing anechoic content with mild to moderate inspissated mildly hyperechoic debris primarily in the caudal lumen extending into the cystic biliary duct and proximal common bile duct.
Lady Belanger	
<b>SPECIES</b>	<b><i>Gastrointestinal</i></b>
Canine	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.
<b>BREED</b>	
Pug	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.
<b>SEX</b>	Normal visible colon wall layers were present with apparent formed feces in lumen.
F/S	<b><i>Pancreas</i></b>
<b>AGE</b>	The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.
13	<b><i>Free Abdomen</i></b>
<b>WEIGHT</b>	No overt lymphadenopathy or peritoneal effusion was present.
8 kg	
<b>INTERPRETED BY</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<ul style="list-style-type: none"> <li>• Mildly distended yet sonographically unremarkable urinary bladder</li> <li>• Mild chronic renal changes with nonobstructive medullary mineral / small renoliths</li> <li>• Moderate inspissated gallbladder debris extending into the cystic biliary duct and proximal common bile duct</li> <li>• Mild hepatic parenchymal remodeling - benign</li> </ul>
<b>IMAGING PERFORMED BY</b>	<b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>
Dr. Belan	Aside from the bilateral renal medullary mineral to small renoliths, no overt evidence of significant upper or lower urinary tract pathology as an obvious cause of the reported hematuria.
<b>HOSPITAL NAME</b>	Urine C/S on a sterile urine sample is suggested even if no evidence of inflammatory cells on urinalysis to rule out underlying infection. Cystoscopy may be indicated if evidence of stranguria / dysuria.
Cambrian AH	
<b>REFERRING VET</b>	Ursodiol therapy is suggested if evidence of cholestasis.
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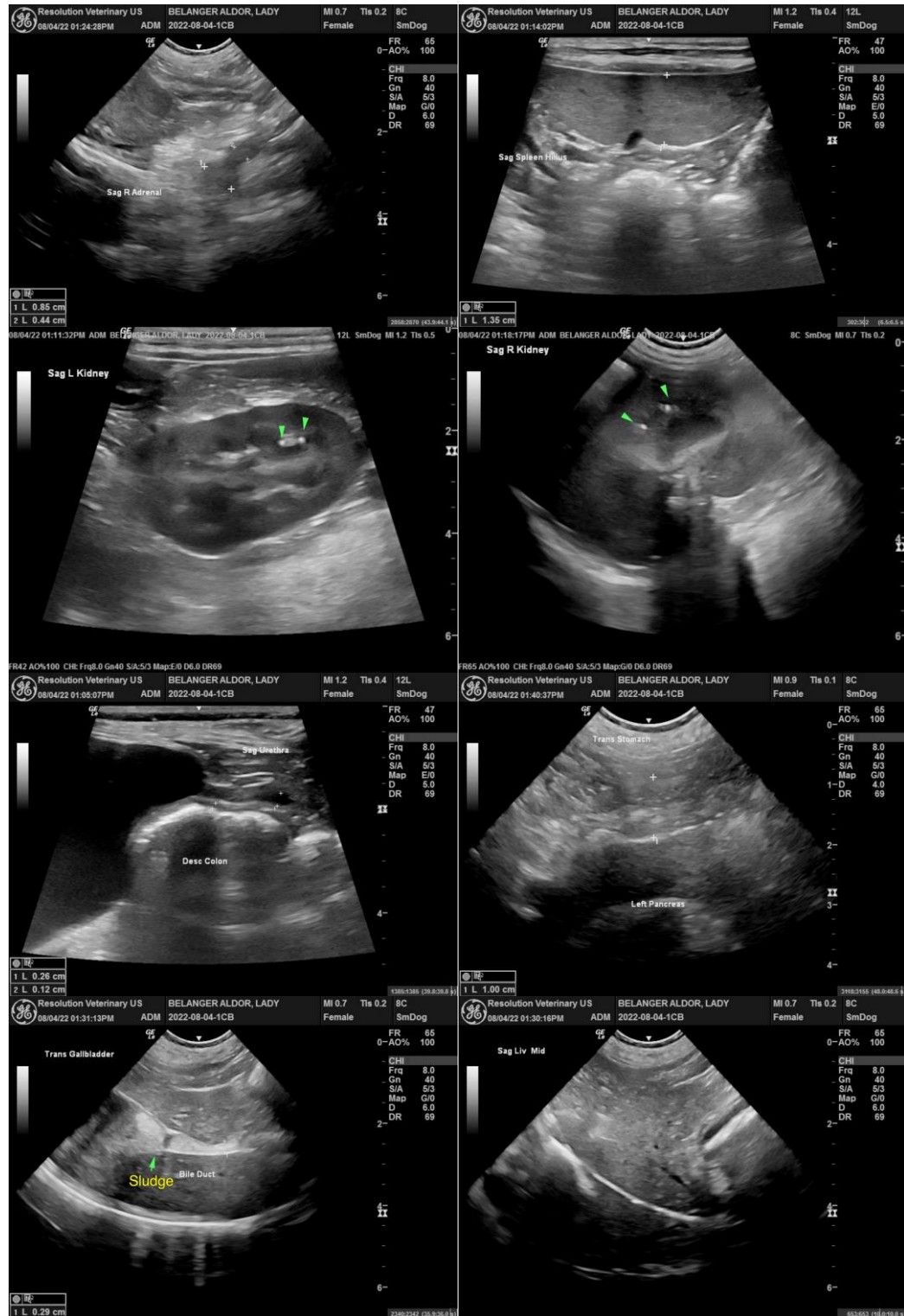
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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