



**PATIENT**

Roxy Elliston

**SPECIES**

Canine

**BREED**

Havanese

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

5 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Blean

**HOSPITAL NAME**

Beddington Trail AH

**REFERRING VET**

Dr. Banahur

**INVOICE**

42727

**DATE**

11/10/22

**PRESENTING CLINICAL SIGNS**

Mild elevation of pre prandial bile acids on pre dental exam  
Abnormal PE/Chem/CBC/UA Results: Pre prandial bile acids mild elevation. Other liver enzymes normal

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.9 cm. The right kidney measured 3.4 cm.

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.51 cm at the cranial pole and 0.52 cm at the caudal pole. The right adrenal gland measured 0.50 cm at the caudal 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**

The liver exhibited potential for mild generalized enlargement. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. Mild retained anechoic pyloric fluid noted.

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.

**Pancreas**



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The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. This is likely consistent with age related pancreatic changes, and incidental.

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**Free Abdomen**

No peritoneal effusion was present.

**BREED**

Havanese

Several, mildly prominent colic lymph nodes were present. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5).

**SEX**

Spayed Female

- Subjective mild hepatomegaly exhibiting normal hepatic vascular volume – benign.
- Minor gallbladder debris (non-mucocele)
- Heterogeneous pancreas – likely patient/age related variant, possible mild remodeling owing to previous inflammatory episode, or low-grade to chronic pancreatitis.
- Minor benign/reactive colic lymphadenopathy – incidental.

**AGE**

10 Years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

5 kg

Low-grade pancreatitis may be suspected if evidence of cranial abdominal or subxiphoid discomfort on palpation. Correlation with a spec cPL could be considered if clinically indicated.

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No evidence of macroscopic intrahepatic or extrahepatic shunt.

Ideally, post-prandial bile acids recommended to assess hepatic functionality. However, hepatic function is likely normal if normal albumin, glucose, BUN, and cholesterol levels. Hepatosupportive medications including Denamarin and Ursodiol are suggested if evidence of cholestasis or hepatic enzyme levels going forward.

**IMAGING PERFORMED BY**

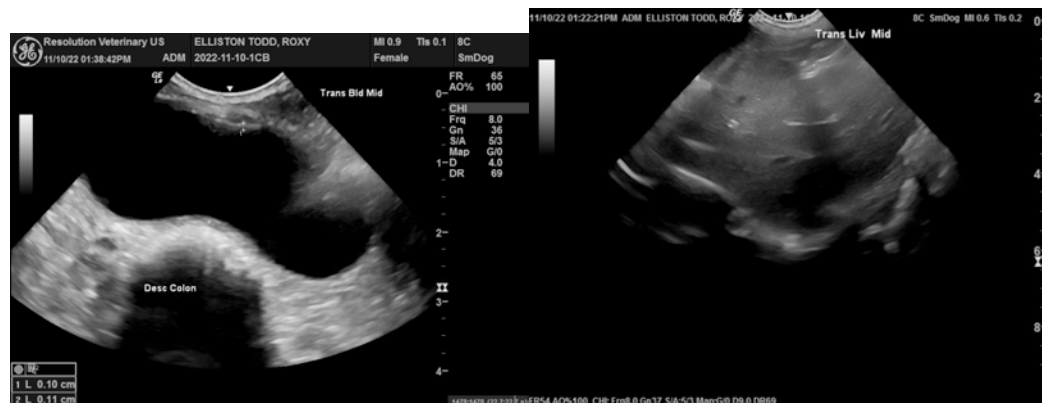
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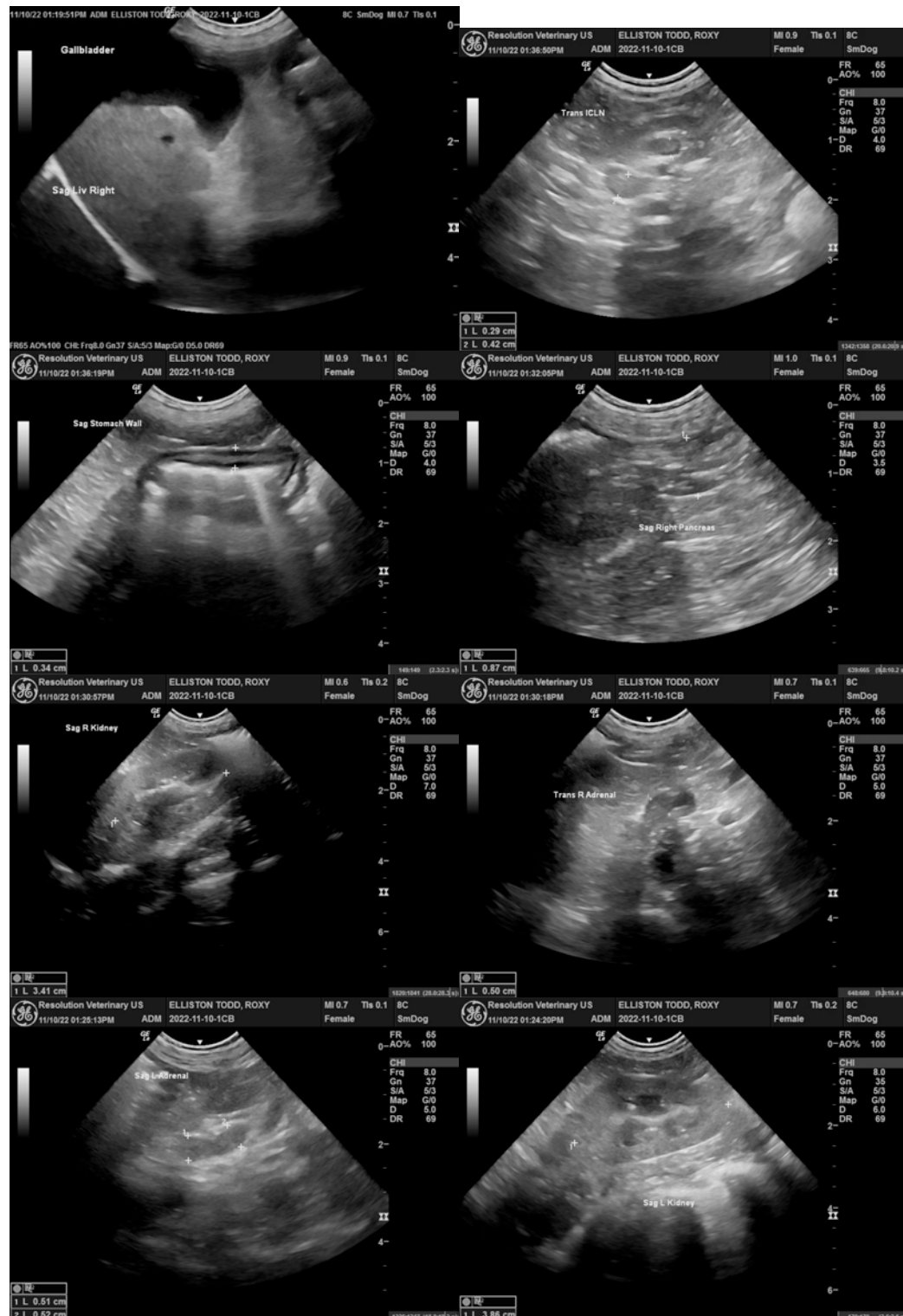
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**

info@SonoPath.com

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