

**PATIENT PRESENTING CLINICAL SIGNS**

Carly Holt  
History: Vomiting,  
Abnormal PE/Chem/CBC/UA Results: Blood normal

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED Urinary System**

Havanese  
The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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.

**SEX**

Spayed female  
Normal size and margination was 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 pelvic dilation was present. The left kidney measured 4.2 cm in length. The right kidney measured 4.3 cm in length.

**AGE**

12 years

The area of the aortic trifurcation was free of pathology.

**WEIGHT**

16.3 pounds

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.52 cm width at the caudal pole and 1.5 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.69 cm width at the caudal pole and 2.1 cm length.

**INTERPRETED BY**

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

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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, neoplastic, or benign parenchyma changes were not noted.

**IMAGING PERFORMED BY JK**

**Liver**

The liver exhibited generalized mild enlargement with symmetrical to mildly rounded contour. The liver parenchyma exhibited increased echogenicity with a mild to moderate coarse echotexture including intermittent non disruptive discreetly hypoechoic nodules. An example of a nodule measured 0.27 cm in diameter. 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.

**HOSPITAL NAME**

Hamburg Veterinary  
Clinic

**REFERRING VET**

Dr. Martens

**Gastrointestinal**

The stomach presented intact yet mildly prominent wall layering with a normal wall layer ratio. The lumen of the stomach was empty with mild luminal gas and no signs of ileus, obstruction or foreign material. The pylorus wall measured 0.42 cm in width.

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**DATE**

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**PATIENT**

Carly Holt

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 duodenum wall measured 0.43 cm in width. The jejunum wall measured 0.32 cm in width.

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

**Pancreas**

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**BREED**

Havanese

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**SEX**

Spayed female

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

12 years

- Mild gastritis pattern.
- Hepatomegaly exhibiting generalized parenchyma hyperechogenicity with intermittent parenchymal nodules.
- Mild pancreatic remodeling.

**WEIGHT**

16.3 pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the lack of reported hepatic enzyme elevation, the liver presentation is nonspecific. Considerations may include vacuolar hepatopathy, inflammatory hepatopathy with areas of hematopoiesis, nodular hyperplasia or less likely neoplasia or other hepatopathy. Assuming normal clotting status an ultrasound guided FNA of the liver parenchyma and nodule if accessible using a 25g needle could be considered for screening cytology and further assessment.

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Potential for low grade to chronic pancreatitis which may present sonographically normal may be suspected if evidence of cranial abdominal or subxiphoid discomfort on palpation. Correlation with a SpecCPL could be considered if clinically indicated. Empirically, supportive care for mild gastritis would likely prove beneficial.

**IMAGING PERFORMED BY**  
JK

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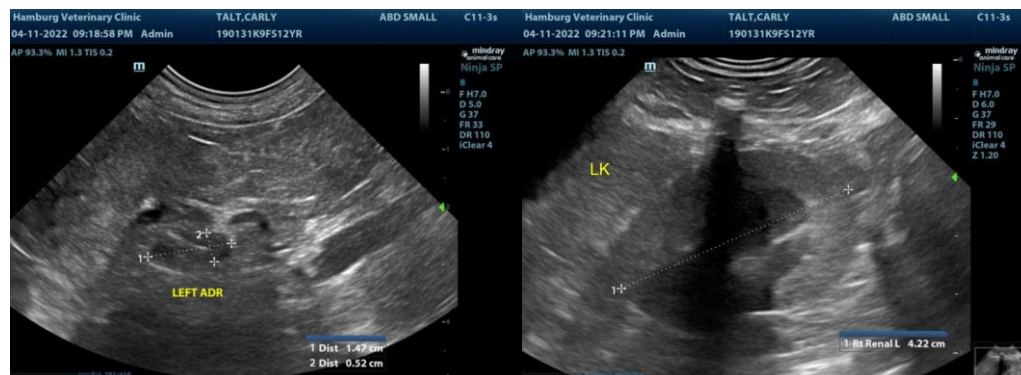
Dr. Martens

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**PATIENT**

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**SPECIES**

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**BREED**

Havanese

**SEX**

Spayed female

**AGE**

12 years

**WEIGHT**

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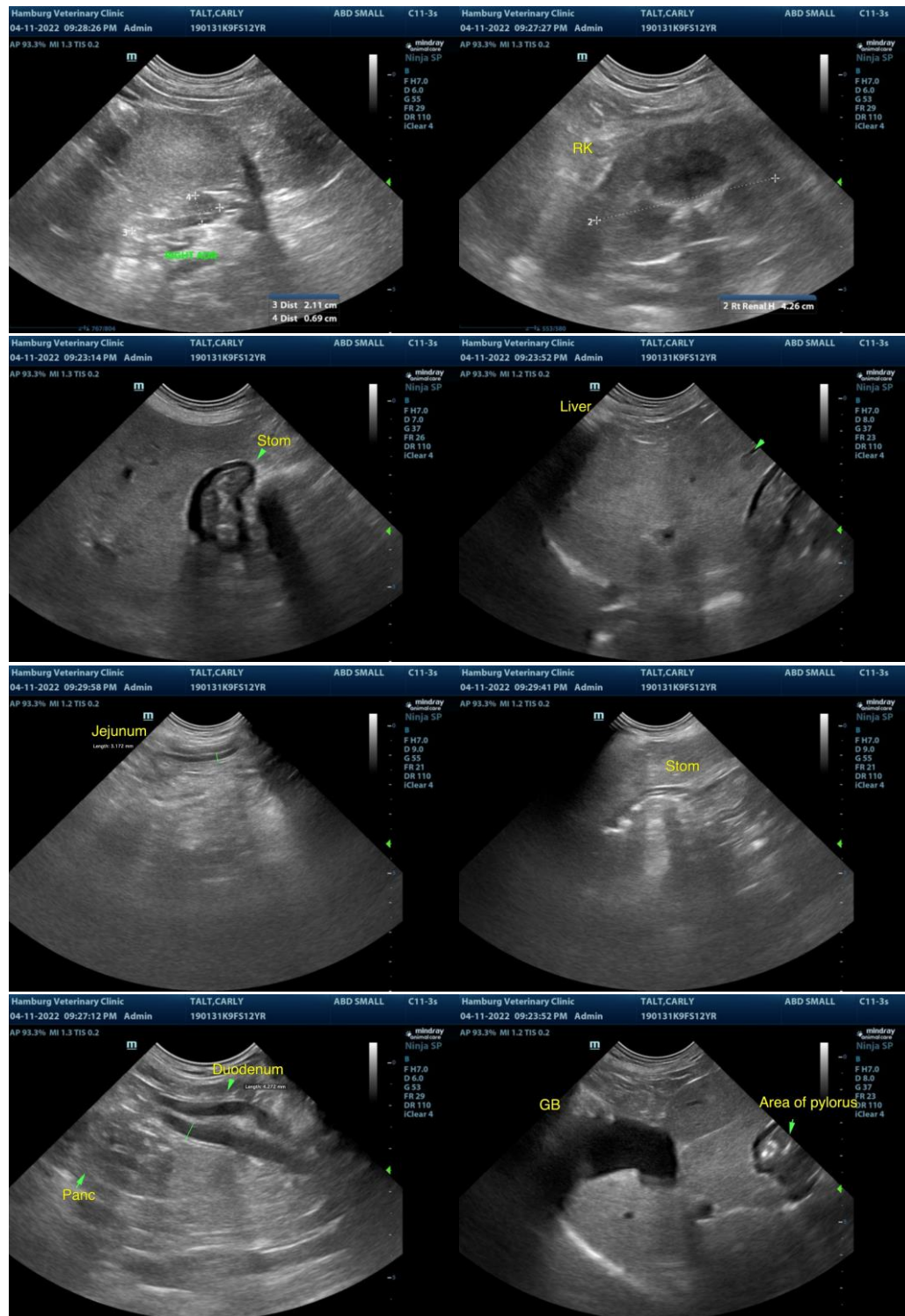
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The information and recommendations provided are based on the images presented by the referring



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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.

**SPECIES**

Canine

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info@SonoPath.com

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Havanese

**SEX**

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