



<b>PATIENT</b>	<b>PRESENTING CLINICAL SIGNS</b>
Piper Holt Wade	INCREASING ALKALINE PHOSPHATASE LEVELS, HYPERCALCEMIA, ELEVATED AST HAVING SLOWING DOWN
<b>SPECIES</b>	Current Medications INTERCEPTOR PLUS AND BRAVECTO
Canine	Abnormal PE/Chem/CBC/UA Results: High alkaline phosphatase, high AST, high calcium levels, hacking sounds, muffled heart sounds
<b>BREED</b>	<b>ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN</b>
Lab Mix	<b>Urinary System</b>
<b>SEX</b>	The urinary bladder presented uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. Urinary bladder wall thickness measured 0.56 cm. Mineralization or echogenic foci within the thickened areas of urinary bladder wall was not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal 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.
FS	
<b>AGE</b>	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 to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Bilateral pinpoint medullary mineral was present. The left kidney measured 6.2 cm in length. The right kidney measured 7.3 cm in length.
13yr	
<b>WEIGHT</b>	The area of the aortic trifurcation was free of pathology.
29kg	<b>Adrenal Glands</b>
<b>INTERPRETED BY</b>	The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 0.64 cm width in the cranial pole and 0.73 cm width in the caudal pole. The right adrenal gland measured 0.70 cm width in the caudal pole.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<b>Spleen</b>
<b>IMAGING PERFORMED BY</b>	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.
Kelly Reschny	<b>Liver/Gallbladder</b>
<b>HOSPITAL NAME</b>	The liver presented enlarged in size. 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. No hepatic masses or nodules visualized. The gallbladder was non-distended in size with primarily anechoic luminal content and minor echogenic debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.
Hespeler AH	
<b>REFERRING VET</b>	
Dr. Bhinder	
<b>INVOICE</b>	
13455ag	
<b>DATE</b>	
04/14/2023	



**PATIENT** *Gastrointestinal*

Piper Holt Wade 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.

**SPECIES** 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.

Canine

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

**BREED** *Pancreas*

Lab Mix

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.

**SEX**

FS

*Free Abdomen*

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**AGE**

13yr

**ULTRASONOGRAPHIC FINDINGS**

- Mild hepatomegaly with mild non-uniform parenchyma.
- Gallbladder debris (non-mucocele).
- Mild age related spleen.
- Bilateral mild chronic renal changes.
- Sonographically unremarkable bilateral adrenal; glands.

**WEIGHT**

29kg

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

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

Overall, largely a geriatric abdomen with no overt evidence of significant abdominal visceral pathology. No overt evidence of definitive intra-abdominal neoplastic criteria. Considerations for the liver may include vacuolar hepatopathy, inflammatory/immune mediated disease, hematopoiesis, hyperplasia, non-obstructive cholestasis or other hepatopathy.

**IMAGING PERFORMED BY**

Kelly Reschny

Given the hypercalcemia in this patient a screening FNA cytology could be considered for further clarification. Hepatosupportive medications such as Denamarin and Ursodiol may prove beneficial.

Rectal palpation and three view chest radiographs are recommended if not done.

**HOSPITAL NAME**

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**PATIENT**

Piper Holt Wade

**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

FS

**AGE**

13yr

**WEIGHT**

29kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Hespeler AH

**REFERRING VET**

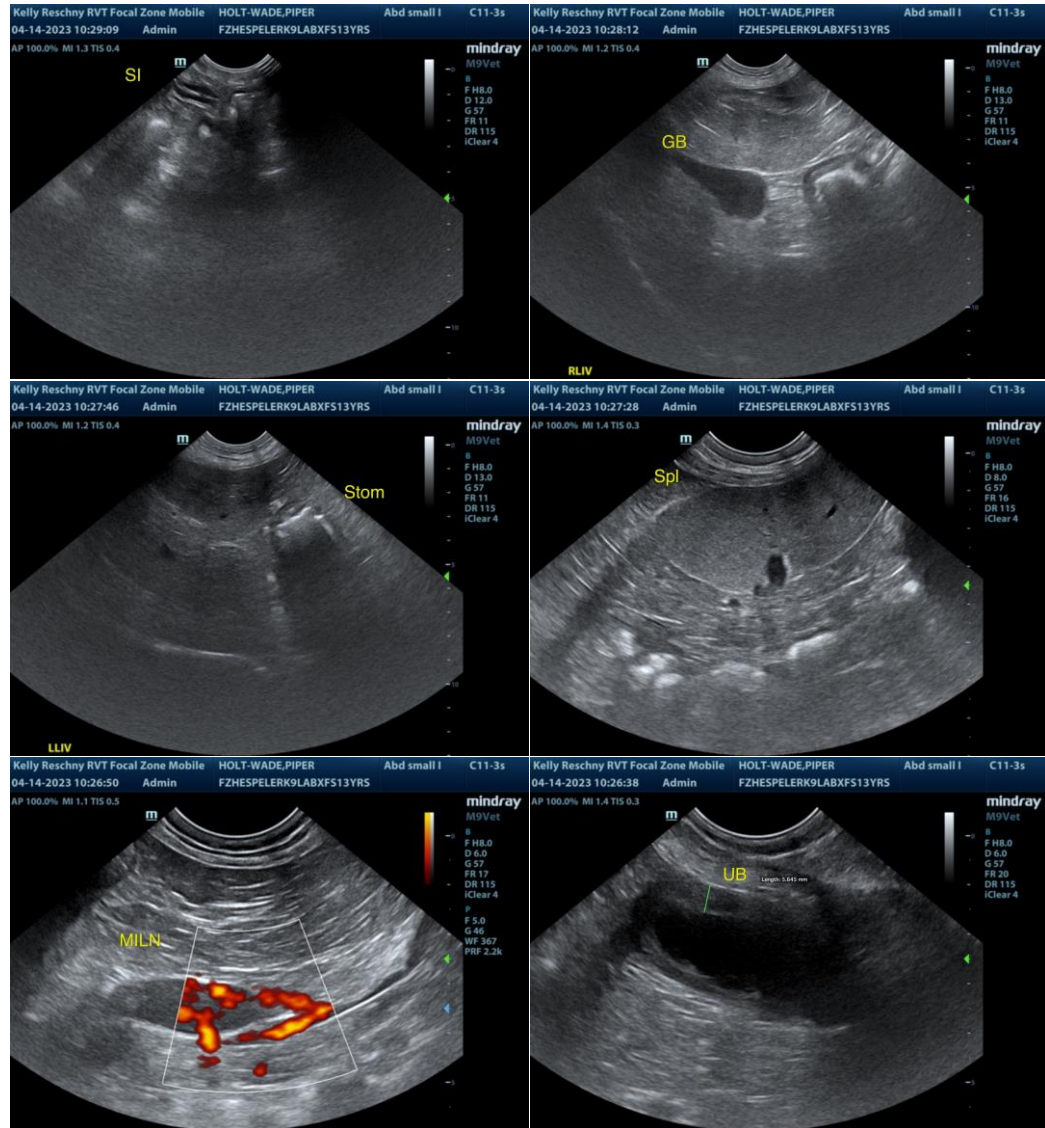
Dr. Bhinder

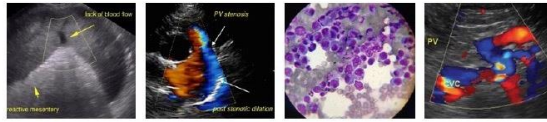
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**PATIENT**

Piper Holt Wade

**SPECIES**

Canine

**BREED**

Lab Mix

**SEX**

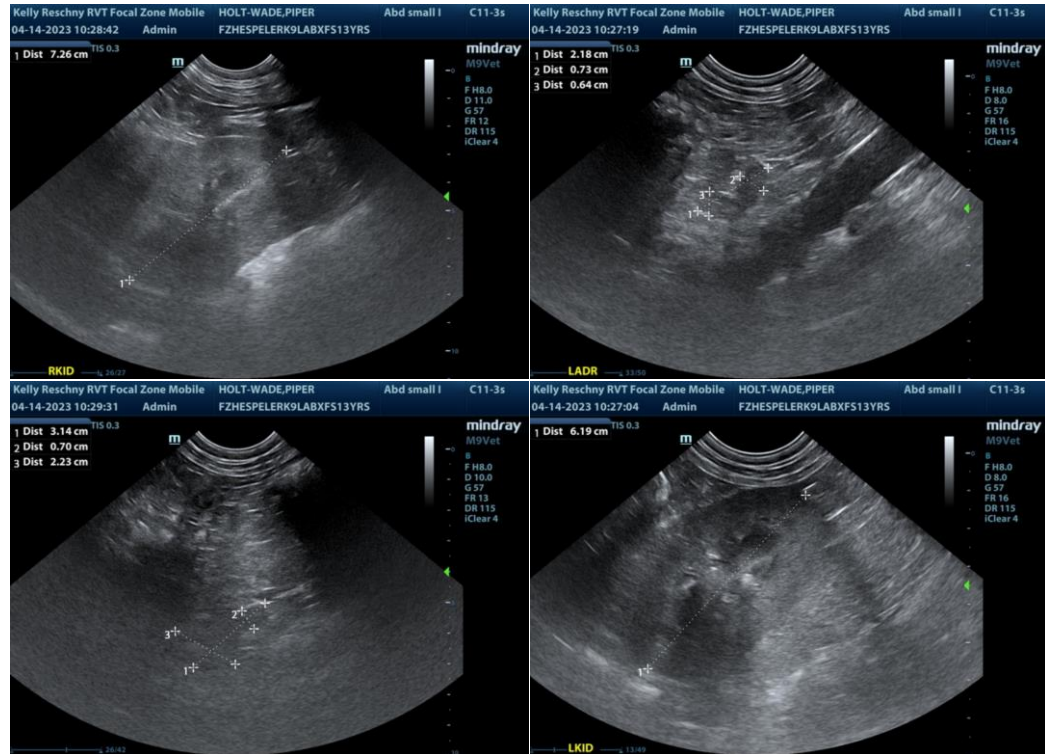
FS

**AGE**

13yr

**WEIGHT**

29kg



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

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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