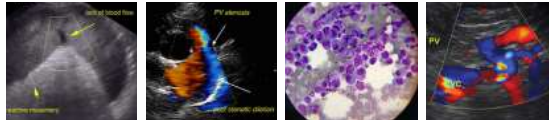


<b>PATIENT</b>	<b>PRESENTING CLINICAL SIGNS</b>
Opal Tishman	Had an episode of vomiting on 11/3/21 and hypothermia. Went to the emergency vet and was treated symptomatically. Bloodwork done and ALT was mildly elevated. Recheck bloodwork on 11/4/21 showed no physical exam abnormalities but bloodwork was repeated and more liver enzymes were elevated
<b>SPECIES</b>	Current Medications Prilosec
Canine	Abnormal PE/Chem/CBC/UA Results: ABNORMAL Laboratory Findings 11/3/21: ALT- 425 11/4/21: ALT- 859, AST- 222, GGT- 11
<b>BREED</b>	<b>ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN</b>
Pit Bull Mix	<i>Urinary System</i>
<b>SEX</b>	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, calculi, or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.
FS	
<b>AGE</b>	The area of the aortic trifurcation was free of pathology.
4.5 years	Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.5 cm in length. The right kidney measured 6.4 cm in length.
<b>WEIGHT</b>	
64 lbs	
<b>INTERPRETED BY</b>	<i>Adrenal Glands</i>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.45 cm width at the caudal pole and 0.51 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 0.55 cm width at the caudal pole and 0.9 cm width at the cranial pole.
<b>IMAGING PERFORMED BY</b>	<i>Spleen</i>
Jenna Walsh, CVT	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.
<b>HOSPITAL NAME</b>	<i>Liver/ Gallbladder</i>
Edgewood AC	The liver was subjectively normal in size and contour. Normal overall hepatic parenchyma echogenicity with moderate coarse echotexture and indistinct yet mildly increased prominence of the portal vascular borders. No masses or nodules noted.
<b>REFERRING VET</b>	
Dr. Kimball	The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
<b>INVOICE</b>	<i>Gastrointestinal</i>
48315	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>DATE</b>	
11/12/21	



**PATIENT**

Opal Tishman

**SPECIES**

Canine

**BREED**

Pit Bull Mix

**SEX**

FS

**AGE**

4.5 years

**WEIGHT**

64 lbs

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Edgewood AC

**REFERRING VET**

Dr. Kimball

**INVOICE**

48315

**DATE**

11/12/21

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***

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**

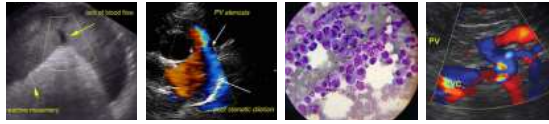
- Hepatopathy - subjectively benign.
- Sonographically unremarkable gastrointestinal tract.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Potential for resolved gastroenteritis episode likely.

The overall appearance was nonspecific yet consistent with benign hepatopathy and likely chronic hepatopathy. Considerations may include primary concern for hepatic parenchymal inflammatory process given the elevated ALT:AST combination, i.e., nonspecific hepatitis (immune mediated, infectious) hepatotoxicosis (copper hepatopathy), hepatotoxic insult with potential for mild nonclinical cholestasis given the mildly elevated GGT level. Hepatic sampling required for further clarification.

FNA of the liver, assuming normal clotting status, could be considered for screening cytology and possible identification of inflammatory cell type if present. However, core or surgical biopsy likely ideal for a definitive diagnosis via histopathology and copper assessment. Leptospirosis titers / pcr may be considered if clinically indicated. Empirically, hepatosupportive medications including denamarin and ursodiol may prove beneficial.



**PATIENT**

Opal Tishman

**SPECIES**

Canine

**BREED**

Pit Bull Mix

**SEX**

FS

**AGE**

4.5 years

**WEIGHT**

64 lbs

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Edgewood AC

**REFERRING VET**

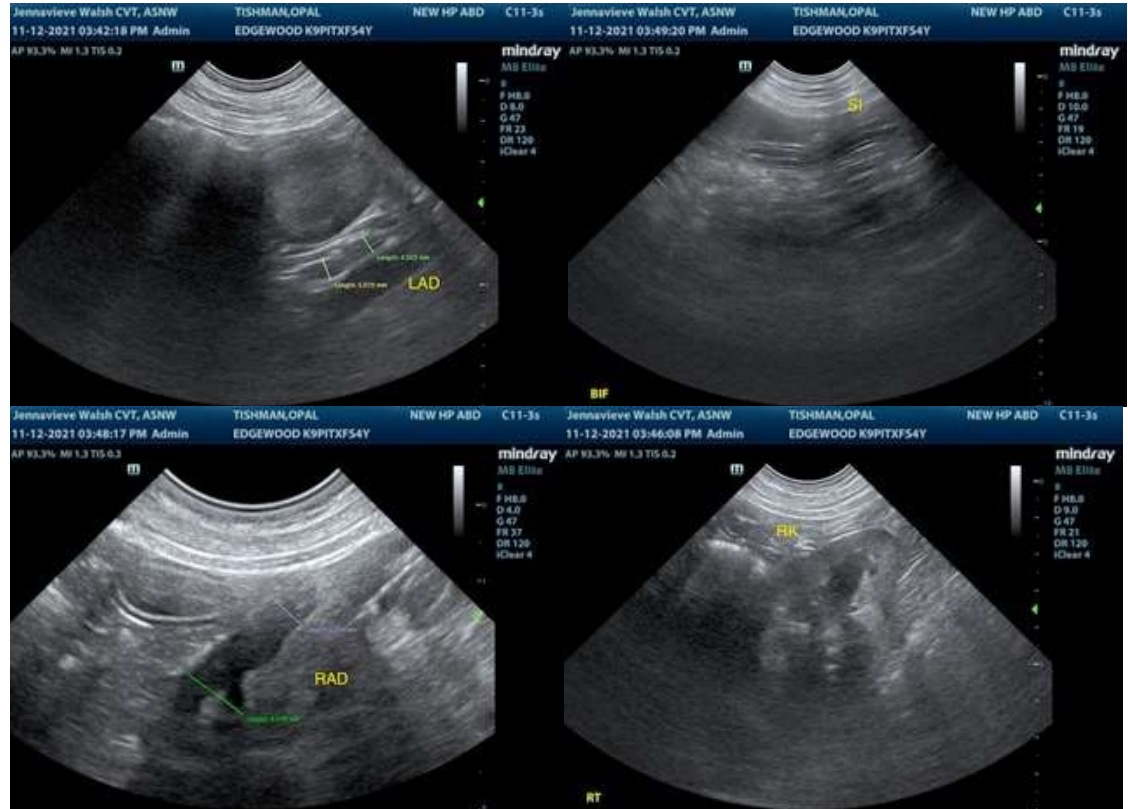
Dr. Kimball

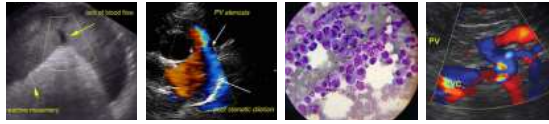
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**DATE**

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**PATIENT**

Opal Tishman

**SPECIES**

Canine

**BREED**

Pit Bull Mix

**SEX**

FS

**AGE**

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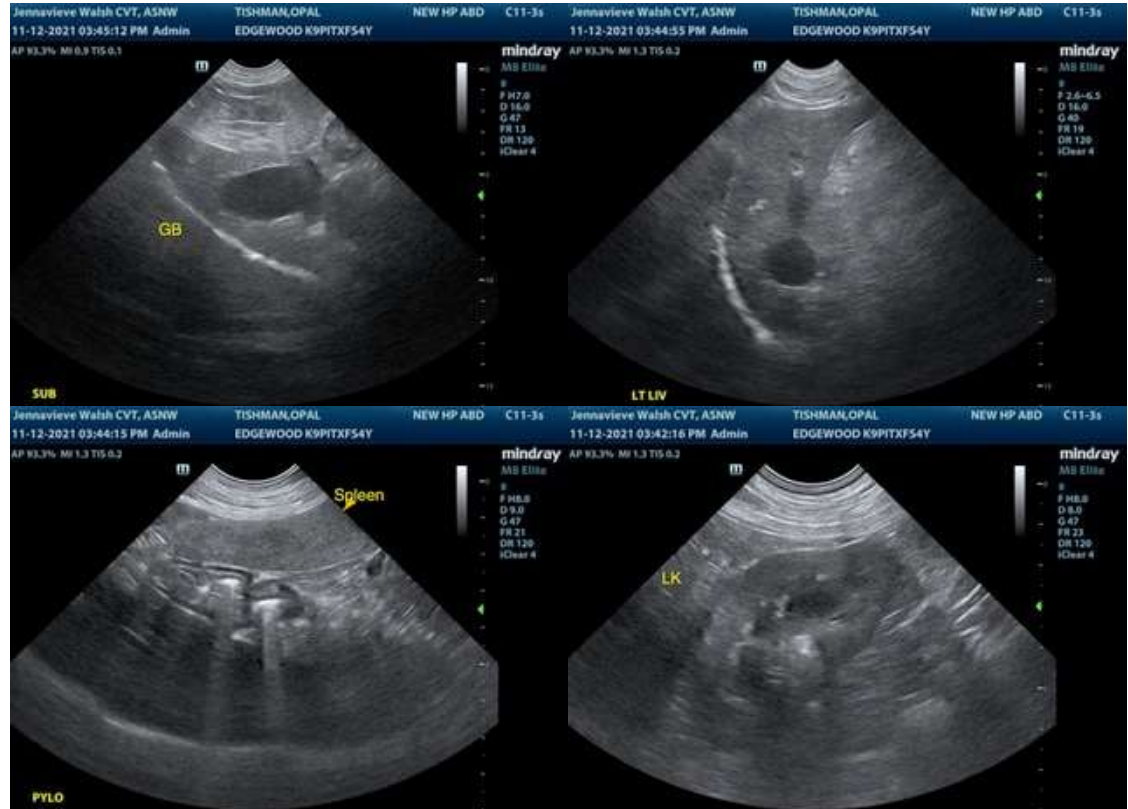
Dr. Kimball

**INVOICE**

48315

**DATE**

11/12/21



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