

**DATE**

10/8/21

**PRESENTING CLINICAL SIGNS**

10/4/21 Vomiting/ lethargy/weight loss: Complete blood work done. Elevated liver values.  
Current Medications: Cerenia 24 mg qd x 4 d, Amoxi 200mg bid x 10d,  
Metronidazole 250mg1/2 bid x 10d. All started 10/4/21.

**PATIENT**

Zoey Schmidt

Lab Results: Attached  
Date of Previous IntraPet Ultrasound: No previous  
Sedation:  
Stat Report:

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

**BREED**

West Highland White Terrier

The left kidney has a normal shape and size (4.76 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

2006

The right kidney is small in size (2.51 cm). Overall echogenicity is slightly hyperechoic with severely decreased corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Pyelectasia measured 0.35 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

18.7 lbs

**INTERPRETED BY**

Kathleen Sennello  
DVM, MS, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.62 cm at the caudal pole It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.54 cm at the caudal pole It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**HOSPITAL NAME**

Chadwell AH

**Spleen**

The spleen is subjectively (normal or large) in size The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a hypoechoic, non-vascular lesion that measured 1.23 cm in the periphery of the spleen.

**REFERRING VET**

Dr. Malick

**INVOICE**

92287

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a large, amorphous mixed echogenic, cystic mass on the left-side of the liver measuring 8.74 x 5.89 cm. The gallbladder lumen is moderately distended. The wall of the gallbladder has irregular polypoid projections and there is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal and the jejunum measured as normal (0.33 cm). Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a mild mesenteric lymphadenomegaly present. The mesenteric lymph nodes measured 1.2 x 0.64 cm and 0.82 cm. There was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

### ***Heart***

A brief view of the heart was submitted. No pericardial effusion was seen.

## **ULTRASONOGRAPHIC FINDINGS**

### **PRIMARY FINDINGS:**

- Heterogenous liver with large, mixed, echogenic cystic mass. The findings are concerning for a possible neoplastic process although a benign cystic mass is possible. Hypoechoic pancreas. The pancreatic changes are most consistent with mild pancreatitis/pancreatic infiltration. I recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider FNA if not improving.

Gallbladder polyps.

- Mild mesenteric lymphadenopathy. Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a mild lymphadenomegaly present. There was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.
- Hypoechoic nodule visualized in the spleen. There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis

## SECONDARY FINDINGS:

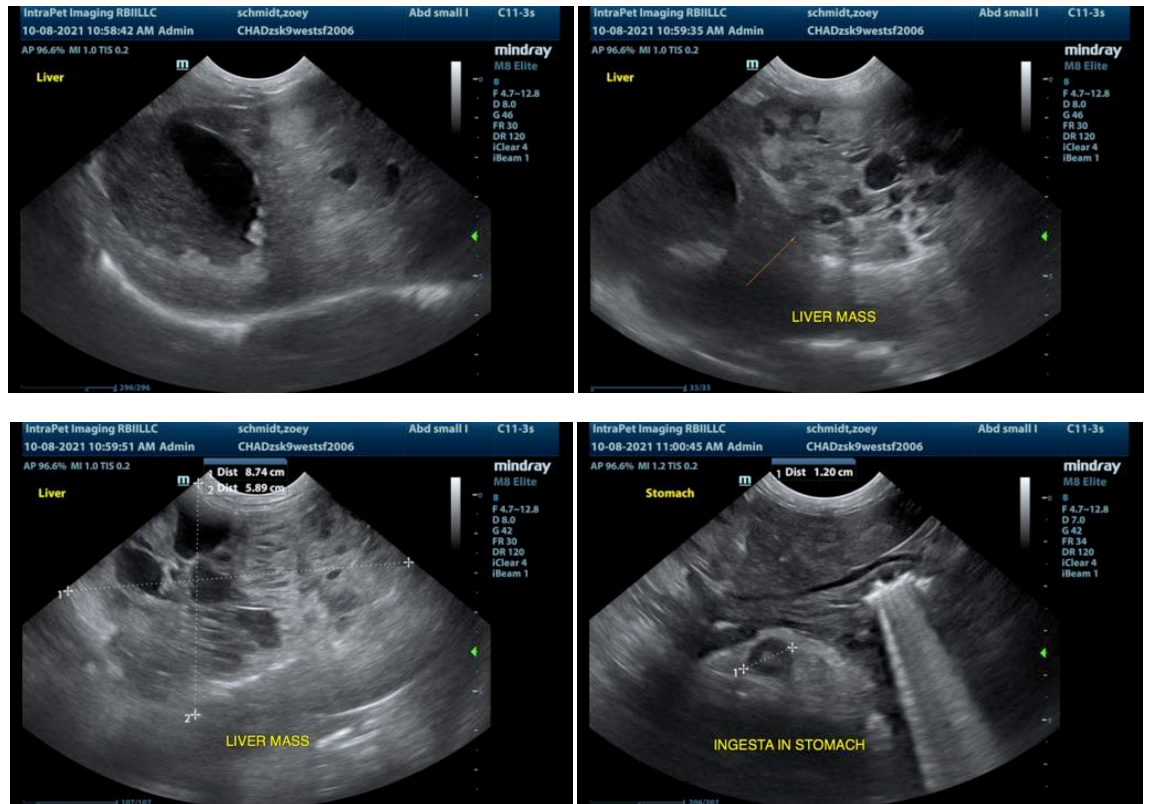
- Mildly reduced corticomedullary distinction in the left kidney. The left renal findings are consistent with age-related change.
- Small shrunken right kidney with severely decreased corticomedullary distinction and pyelectasia. Changes are consistent with congenital renal agenesis or previous injury and scarring of the right kidney.
- Moderate ingesta with discrete structure visualized. This is most consistent with food/kibble, correlate with feeding history.

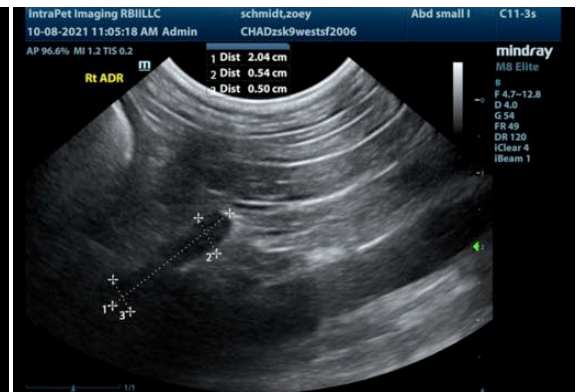
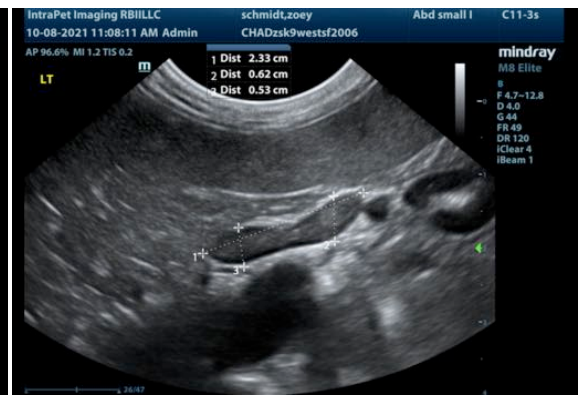
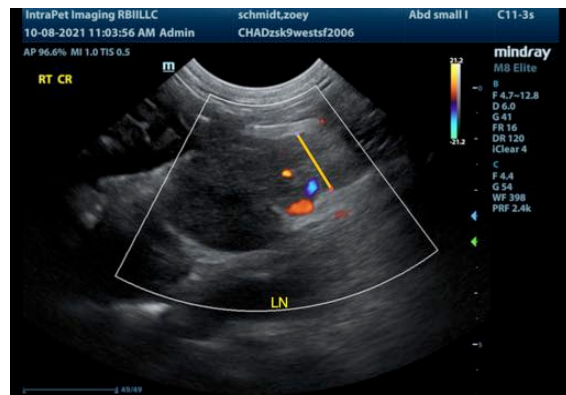
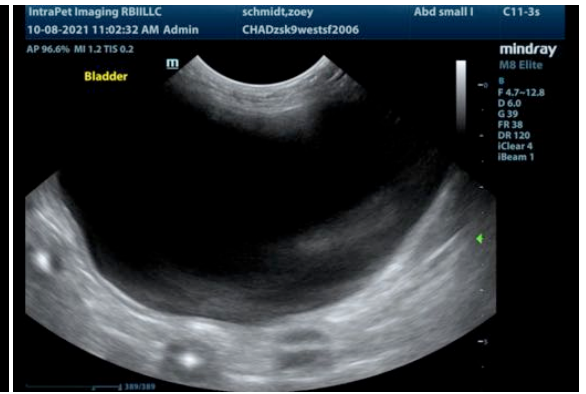
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

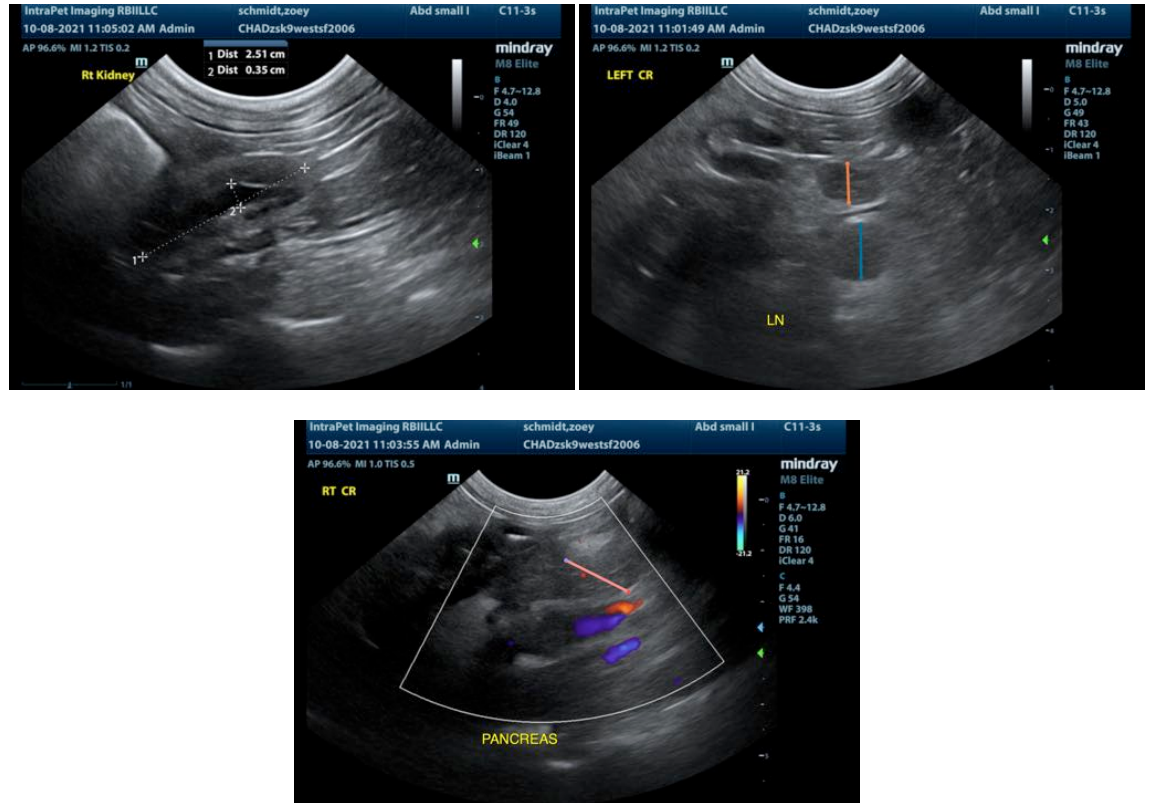
There is a large liver mass visualized, which is likely the source for the liver enzyme elevation reported. This may be a benign or malignant mass. Surgical biopsy would likely be necessary to determine this as the mass is fairly cystic and would be difficult to aspirate (but this could be safely attempted if desire).

The pancreas is large and appears somewhat inflamed. Consider a GI panel with quantitative PLI, TLI, cobalamin and folate to obtain more information on the pancreas and small intestine. There is a large amount of gallbladder debris and some early polyp formation in the gallbladder wall. Consider starting Ursodiol and monitoring the gallbladder closely for development of a mucocele.

If surgical intervention is considered I recommend advanced imaging (CT scan to further delineate the liver mass and assess it for possible surgical removal. There is a chance that the liver mass is not a cause for the current vomiting.







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.

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