

**DATE PRESENTING CLINICAL SIGNS**

3/1/22

2/26/22- Was eating yesterday AM- wasn't excited about guest like normal in the evening, seemed to be moving slower and laying around- decreased interest in eating. Started yelping so called in here and checked into the queue- got in with rdvm around 830- was lethargic this am, no vomiting or diarrhea and urinated a little bit. Changed brands of food yesterday- known to get occasional pizza crust or table scraps. Hx of HGE. Presented to rdvm- rads showed empty stomach, feces in colon, decreased serosal detail. BW : LIPA 1921, Abnormal CPL. TX: Cerenia 0.5mL, Famotidine 0.3mL, Buprenorphine 0.17mL- concerns for pancreatitis.

**PATIENT**

Reese Divito

**SPECIES**

Canine

Current Medications: Buprenorphine, Cerenia, Omeprazole, Entyce, Metoclopramide, Sucralfate, Amp/Sulb.  
Lab Results: PCV/TS 2/26: 43/6.6, 2/27- 46/6.6, 2/28- 52/7.2.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**BREED**

Chihuahua

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**

Spayed Female

**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.

**AGE**

12/27/09

The left kidney has a normal shape and size (3.90 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.

**WEIGHT**

11.6 Pounds

The right kidney has a normal shape and size (3.92 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.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.53 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.

**IMAGING PERFORMED BY**

Rachel Brilhart RDMS

The right adrenal gland is normal in size measuring 0.63 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**

Animal Emergency  
Hospital

**Spleen**

The spleen is relatively normal in size. The spleen echotexture is heterogenous and mildly mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**REFERRING VET**

Dr. Nacke-Horney

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

**INVOICE**

35787

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach is severely distended, largely with fluid and a small amount of shadowing material, most consistent with ingesta. 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 layers 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. Jejunum wall measured 0.29 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 mottled 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, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

### ***Other***

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

## **PRIMARY FINDINGS**

- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Severely fluid dilated stomach – Findings are most consistent with either delayed gastric emptying/ileus or an outflow tract obstruction (none observed, but cannot be ruled out).

## **SECONDARY FINDINGS**

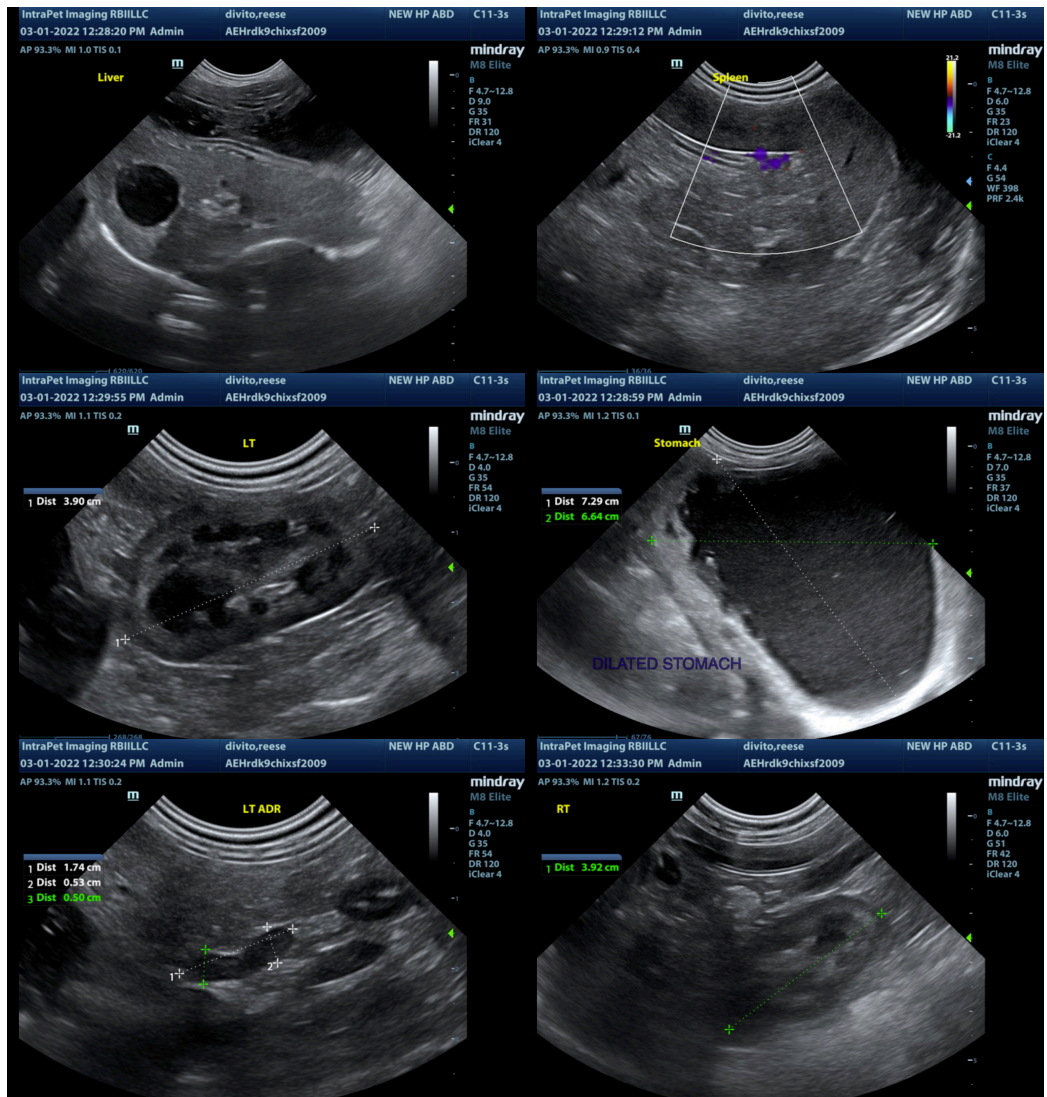
- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

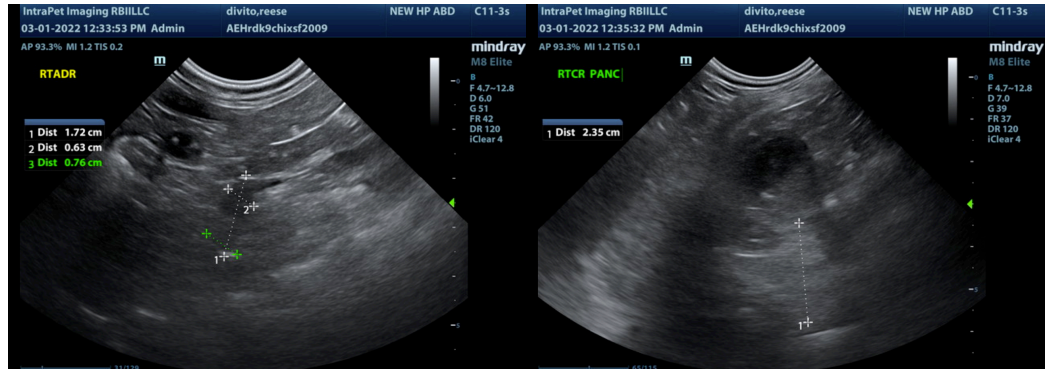
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No large focal mass lesions or obstructions are observed. The stomach is severely fluid dilated, which can be seen with severe ileus secondary to pancreatitis, gastroenteritis, etc., or can be seen secondary to an outflow tract obstruction. Correlate these findings with abdominal radiographs and close continued monitoring, as ultrasound cannot rule out all foreign bodies. The significance of the changes observed in the spleen and liver are unknown. They are relatively mild and could potentially be age related change. If there is the indication of more chronic illness or a lack of resolution of these symptoms, you could consider a fine needle aspirate of the liver and spleen.

Recommend therapy for pancreatitis/gastroenteritis with close monitoring of the gastric lumen and for possible obstruction. Additionally, consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine. If symptoms do not improve, serial imaging or even GI biopsies may be necessary.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopath.com