

**DATE PRESENTING CLINICAL SIGNS**

1/31/23 Dog is showing consistent (multiple times per week) GI signs of Regurg +/- vomiting over the past 6 months. Signs only briefly improved with H2 blockers (pepcid, prilosec) and other GI meds ( tylosin ).

**PATIENT**

Tessa Heiger

Current Medications: None listed.

Lab Results: Fecal 5/22 - Neg, 7/21 - Neg. Hwm/Tick Serology - 9/22 Neg

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Declined.

**SPECIES**

Stat Report: Not requested.

Canine

Imaging Performed By: Rachel Brillhart, RDMS.

**BREED**

Australian Shepherd

**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.

**SEX**

Spayed Female

The left kidney has a normal shape and size (5.1 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

5/1/21

**WEIGHT**

46.4 Pounds

The right kidney has a normal shape and size (5.06 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.60 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.

**HOSPITAL NAME**

Fork Vet Hospital

The right adrenal gland is normal in size measuring 0.67 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.

**REFERRING VET**

Dr. Doherty

**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and 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.

**INVOICE**

44623

**Liver**

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

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

### ***Gastrointestinal***

The stomach contains minimal luminal contents. In some regions it measures as slightly thickened at 0.85 cm with some variability due to the presence of rugal folds. In most of these regions, the distinction of the gastric wall layers is adequate, and there is no impression of reduced peristaltic activity. The omentum around the stomach appears slightly hyperechoic. No masses or focal lesions are 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 measures 0.21 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.

## **ULTRASONOGRAPHIC FINDINGS**

- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Subjectively thickened gastric wall with surrounding inflammation – Findings would be most consistent with gastritis. Other differentials would include edema, image artifact, or infiltrative disease.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No focal lesions are visualized in the GI tract to explain the chronic vomiting and regurgitation reported. The stomach does appear subjectively mildly thickened with some surrounding hyperechoic mesentery. The significance of this is uncertain. If possible, differentiation between vomiting and regurgitation would be ideal (it could possibly be both).

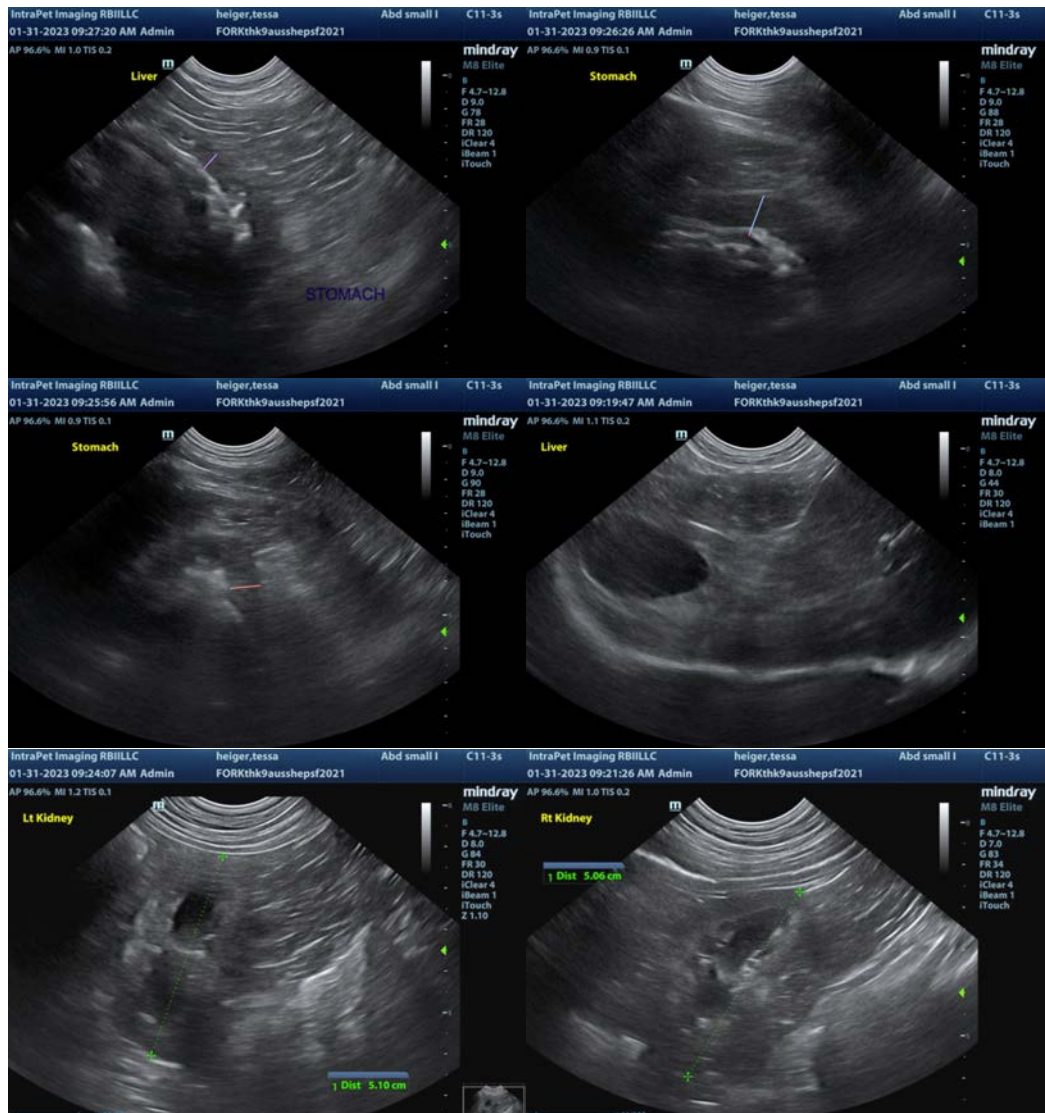
For chronic vomiting, consider such differentials as food allergy/dietary intolerance, GI parasitism, chronic pancreatitis, IBD and less likely neoplasia, etc..

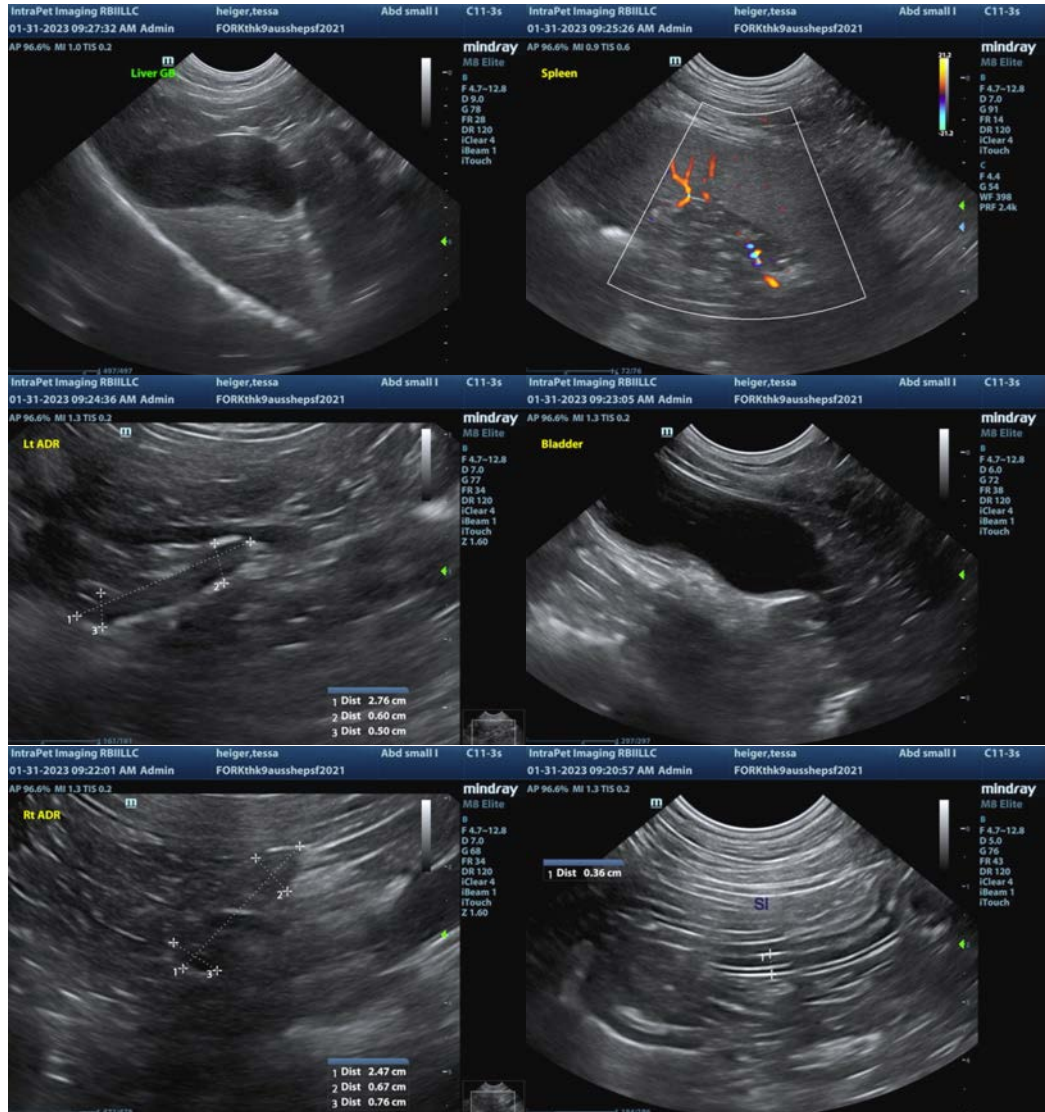
For regurgitation, possible differentials would include metabolic disease such as Addison's disease, neuromuscular issues such as myasthenia gravis, esophageal dysmotility, etc., esophagitis, or obstructive disease. Consider the following:

- Recommend screening for metabolic disease if not already done, including screening for Addison's disease and possibly hypothyroidism.
- Recommend a radiograph of the thorax and abdomen to evaluate the esophagus and stomach.

- If regurgitation is considered likely, consider testing for myasthenia gravis.
- Further imaging could consist of a barium esophogram/gastrogram, and fluoroscopic evaluation of the esophagus and stomach for dysmotility.
- Additionally, upper GI endoscopy could be considered to evaluate the esophagus and obtain gastric biopsies.

If not already done, you could consider treatment for esophagitis and helicobacter prior to more aggressive evaluation.





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.

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