

**DATE PRESENTING CLINICAL SIGNS**

7/21/23 Vomiting, last meal kept down was 2 days ago. BAR, tense on abdominal palpation. All else WNL

PATIENT

Rosie McCorkle

Current Medications: Ampicillin 100 mg IV BID, LRS at 20 ml/hour + KCl, Cerenia 0.5 ml IV
Famotidine 0.3 ml IV BID

Lab Results: Low Potassium

Radiographs: Thickened stomach wall. Thickened walls of small intestines. Opacity in stomach.

Date of Previous IntraPet Ultrasound: No previous.

SPECIES

Canine

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

Terrier X

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

12/16/19

The left kidney has a normal shape and size (3.65 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.

WEIGHT

10 Pounds

The right kidney has a normal shape and size (3.68 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 0.53 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.

HOSPITAL NAME

Chadwell AH

The right adrenal gland is normal in size measuring 0.58 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. Schaupp

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

44266

Liver

The liver is subjectively normal in size, and mildly hypoechoic 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. 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

There is minimal material visualized within the gastric lumen. The gastric wall appears prominent and somewhat thickened despite the variability of rugal folding, with some areas measuring as thick as 0.80 cm with some reduction in the distinction of wall layering. No focal lesions are observed. There appears to be inflammation surrounding the stomach.

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. Duodenum wall measures 0.31 cm. Jejunum wall measures 0.27 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. There is a diffuse mild to moderate mesenteric lymphadenopathy. Examples of enlarged lymph nodes at the root of the mesentery measure at 1.8 cm x 0.97 cm and 1.5 cm x 0.97 cm. The gastric lymph node is enlarged, measuring 0.96 cm in diameter. The mesentery is hyperechoic around the stomach.

ULTRASONOGRAPHIC FINDINGS

- Thickened, hypoechoic gastric wall with reduced detail of wall layering – Findings are concerning for infiltrative disease (round cell neoplasia, etc.), but severe gastritis and edema can also have this appearance.
- Mildly hypoechoic/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. The significance of this is unclear. If liver enzyme elevations are present, you could consider a fine needle aspirate.
- 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.
- Moderate mesenteric lymphadenopathy at the root of the mesentery – The moderate mesenteric lymphadenopathy could be concerning for a neoplastic process, although you can see significant lymphadenopathy in some cases of autoimmune/inflammatory disease, infectious disease (tick born

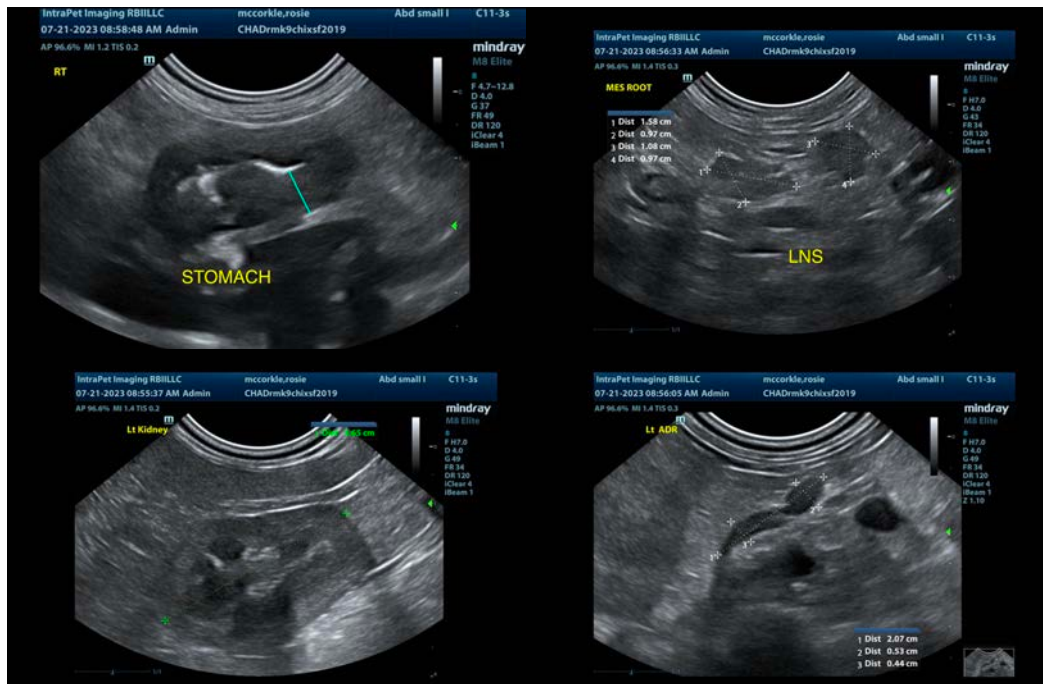
disease-such as bartonella, fungal infections, FIP (cats) etc. A fine needle aspirate with cytology is recommended for further evaluation.

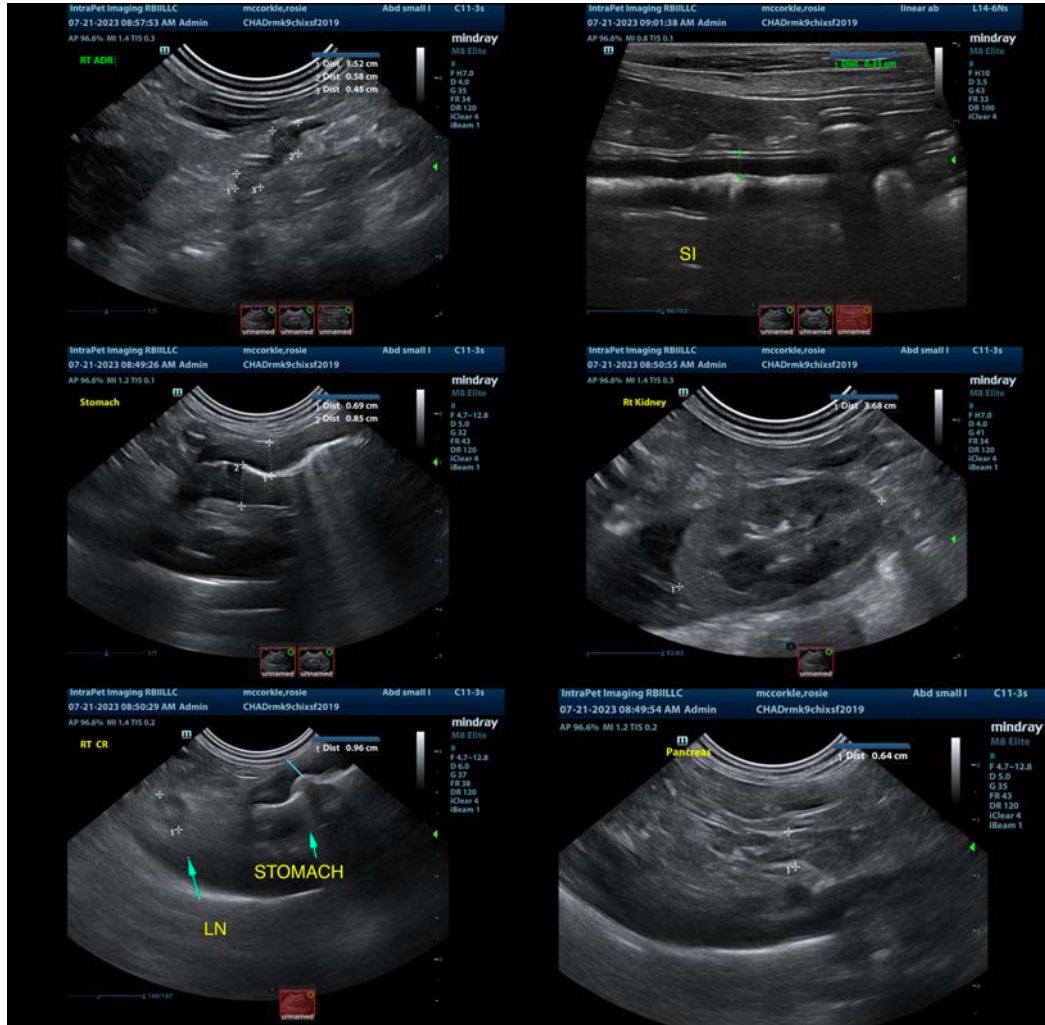
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The gastric wall appears prominent and thickened with some surrounding hyperechoic mesentery. Wall layering appears somewhat indistinct. Recommend a fine needle aspirate of the gastric wall, looking for possible evidence of round cell neoplasia, etc. If this is not diagnostic, then surgical biopsies may be necessary to definitively obtain a diagnosis. Other differentials such as severe gastritis or edema can have a similar presentation, but the presence of the diffuse mesenteric lymphadenopathy is concerning and increases my concern for a possible underlying neoplastic. Endoscopic biopsies can be considered but may not obtain a diagnosis if the mucosal layer is intact.

Additionally, consider a fine needle aspirate of a mesenteric lymph node, as this may be helpful, and 3-view thoracic radiographs are recommended.

If a cause for acute gastritis is suspected (known ingestion of irritating materials, etc.), then you could consider medical management and repeat imaging in several days.





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)
 info@sonopath.com