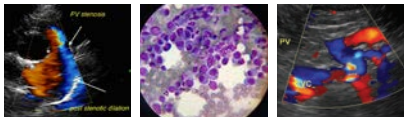
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

1-800-838-4268 info@sonopath.com SonoPath.com

DATE

4/6/23

PATIENT

Zoey Foster

SPECIES

Canine

BREED

Boxer

SEX

Spayed Female

AGE

10/23/11

WEIGHT

64 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Eastern AH

REFERRING VET

Dr. Michelotti

INVOICE

46465

PRESENTING CLINICAL SIGNS

Presented 3/30/23 for several month history of regurgitation (o report episodes of both bile and undigested food being brought up with no warning/ abdominal involvement) that has progressed in frequency over the past week. Concern for gastric changes on radiographs.

Current Medications: Cerenia, omeprazole, sucralfate started 3/23/23
Lab Results: CBC/Chem performed 3/30/23 unremarkable. Rod bacteruria w/ hyposthenuria 3/30/23
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

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.

The prostate is normal in size and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.48 cm) with small shadowing non-obstructive nephroliths. 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.57 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.71 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 large and irregular, measuring 1.66 cm at the cranial pole, 0.71 cm at the caudal pole, and 2.47 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is abnormal in appearance in that there is a hypoechoic nodule at the cranial pole measuring 1.4 cm x 1.66 cm. No evidence of vascular invasion is visualized.

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.

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 gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of 0.35 cm 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. Duodenum wall measures 0.56 cm. Jejunum wall measures 0.39 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 area of the pancreas is normal and isoechoic to surrounding 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

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

- Hypoechoic nodule at the cranial pole of the right adrenal gland – Adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

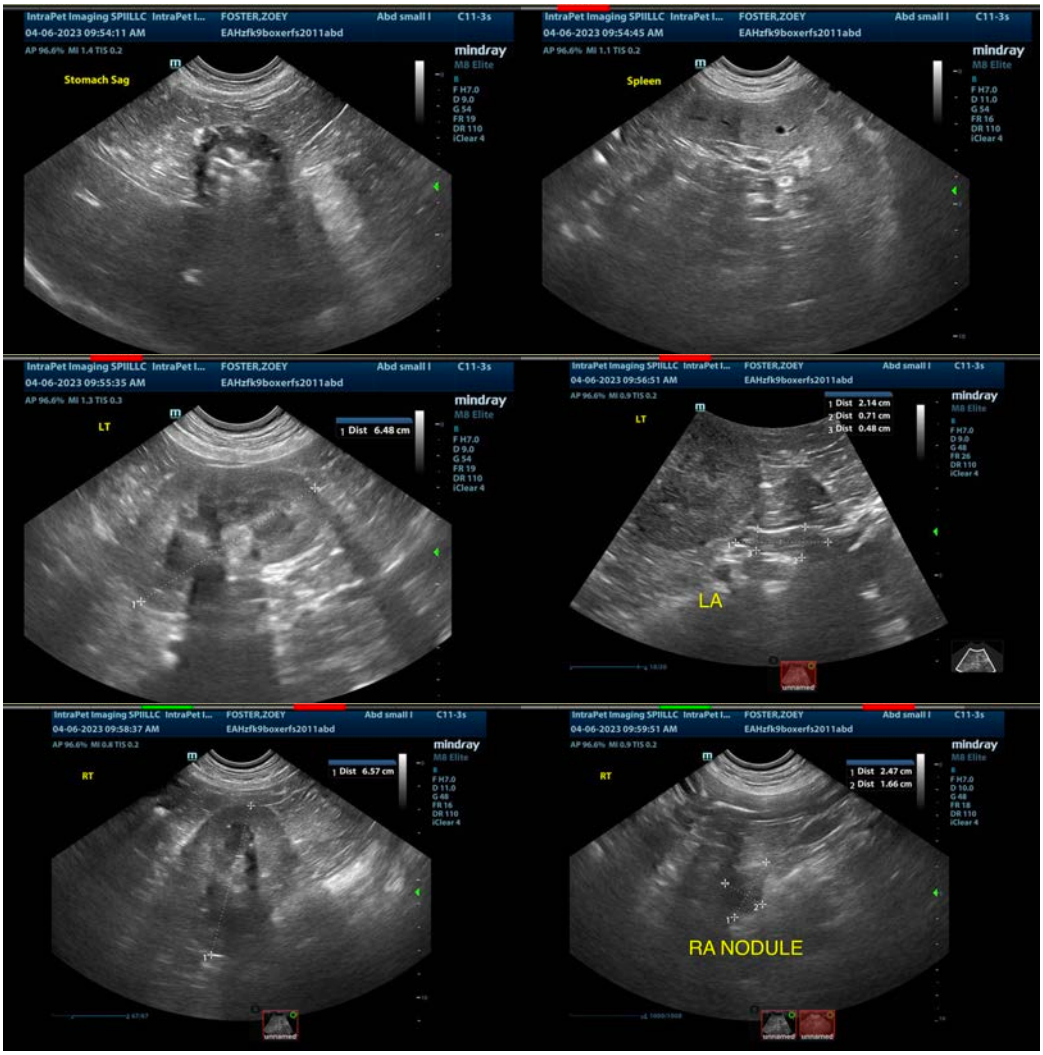
No focal lesions are visualized associated with the stomach or proximal gastrointestinal tract to explain the regurgitation/vomiting noted. Ultrasound can be somewhat insensitive at picking up subtle gastric lesions, particularly mucosal lesions. For further evaluation, I would consider either a radiographic or fluoroscopic barium swallow to assess the dimensions of the esophagus and stomach and roughty assess motility. Additionally, an upper GI endoscopy could be considered to further evaluate the stomach and esophagus anatomically.

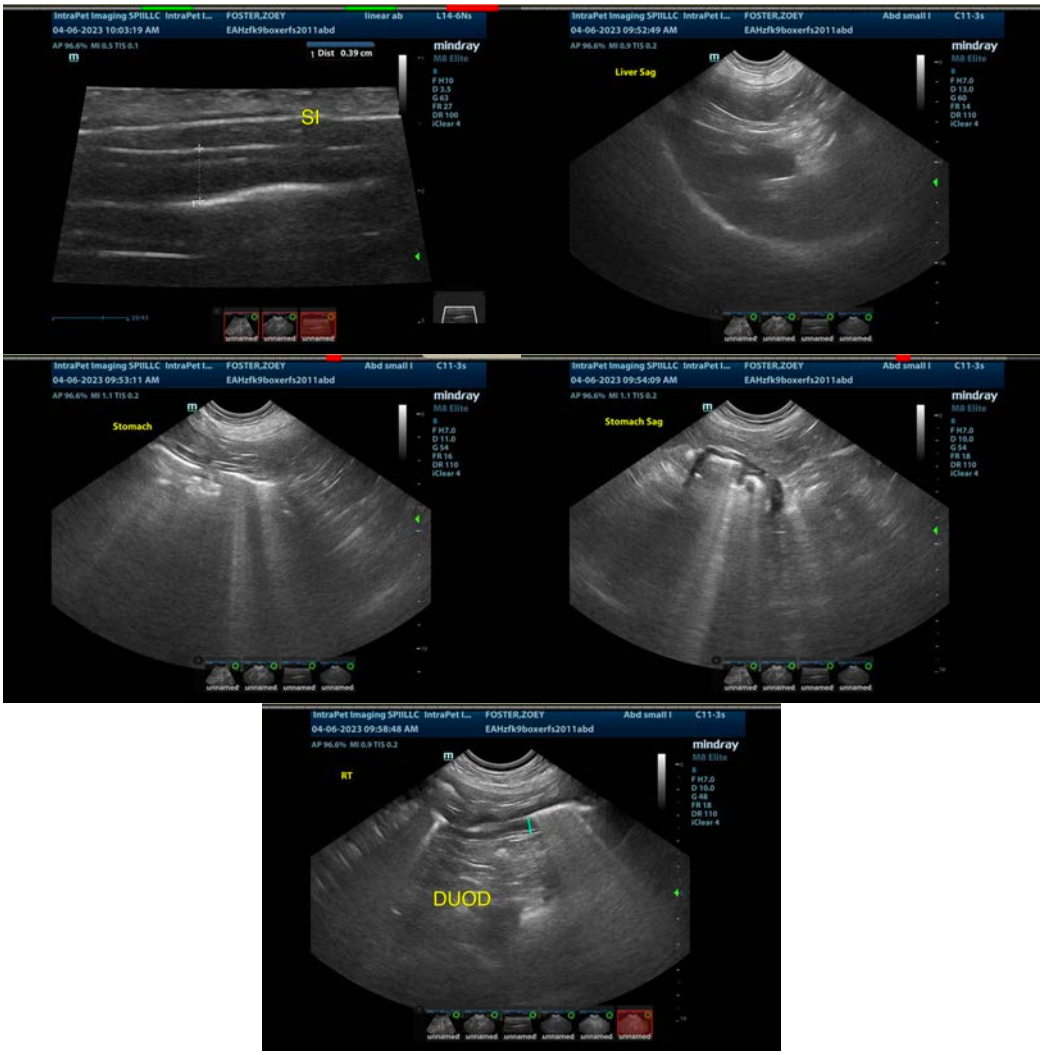
If megaesophagus is diagnosed, then additionally consider acetylcholine receptor antibody testing for myasthenia gravis, thyroid evaluation, +/- screening for Adddison's disease. If concurrent vomiting is still suspected, consider obtaining GI biopsies.

There is a hypoechoc nodule visualized associated with the right adrenal gland. This could be benign or malignant and could be secreting hormones or be non-active. At this time, I suspect it is relatively incidental.

If signs of Cushing's are present, you could consider adrenal function testing. These results may be somewhat hard to interpret if the patient is having other medical conditions. Additionally, I would recommend a blood pressure evaluation. If hypertension is present, recommend measuring catecholamine levels to evaluate for a possible pheochromocytoma, and if surgical removal would be considered, you could consider a contrast CT scan, looking for evidence of vascular invasion, etc. The stomach could be further evaluated by CT scan at that time as well. Alternately, continued monitoring with ultrasound is possible, with caution, as some of these lesions can occasionally change rapidly.

Recommend three view thoracic radiographs to evaluate for possible 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