

**DATE PRESENTING CLINICAL SIGNS**

1/18/22

P presented 1/14 with complaint of intermittent vomiting and diarrhea. Per O - one-episode 12/23-12/24, another episode started 12/30 and lasted for a few days, then P had diarrhea for a couple of days last week. At exam P well hydrated, abdomen mildly tense on abdominal palpation, especially cranially, but non-painful. Formed fecal material palpated on rectal exam.

PATIENT

Elliot Roark

SPECIES

Canine

BREED

Schnauzer X

SEX

Neutered Male

AGE

8/24/13

WEIGHT

15.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Churchville Vet Clinic

REFERRING VET

Dr. Kauffman

INVOICE

34327

Current Medications: i/d canned diet started this week.

No current medications..

Lab Results: Moderate decrease in total protein with a significant hyperglobulinemia. Mild decrease in amylase. Fecal + giardia antigen all negative.

Radiographs: Stomach moderately full of ingesta. Rounded region craniodorsal abdomen with increased opacity (appears to be pylorus). Mild gas within small intestines with areas of suspected intestinal wall thickening. Moderate fecal material with descending colon.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

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 (0.5 cm) 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 (4.59 cm). Overall echogenicity is normal with adequate 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.

The right kidney has a normal shape and size (4.52 cm). Overall echogenicity is normal with adequate 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.61 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 0.50 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.

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 large in size, and normal in 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. 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 primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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, 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

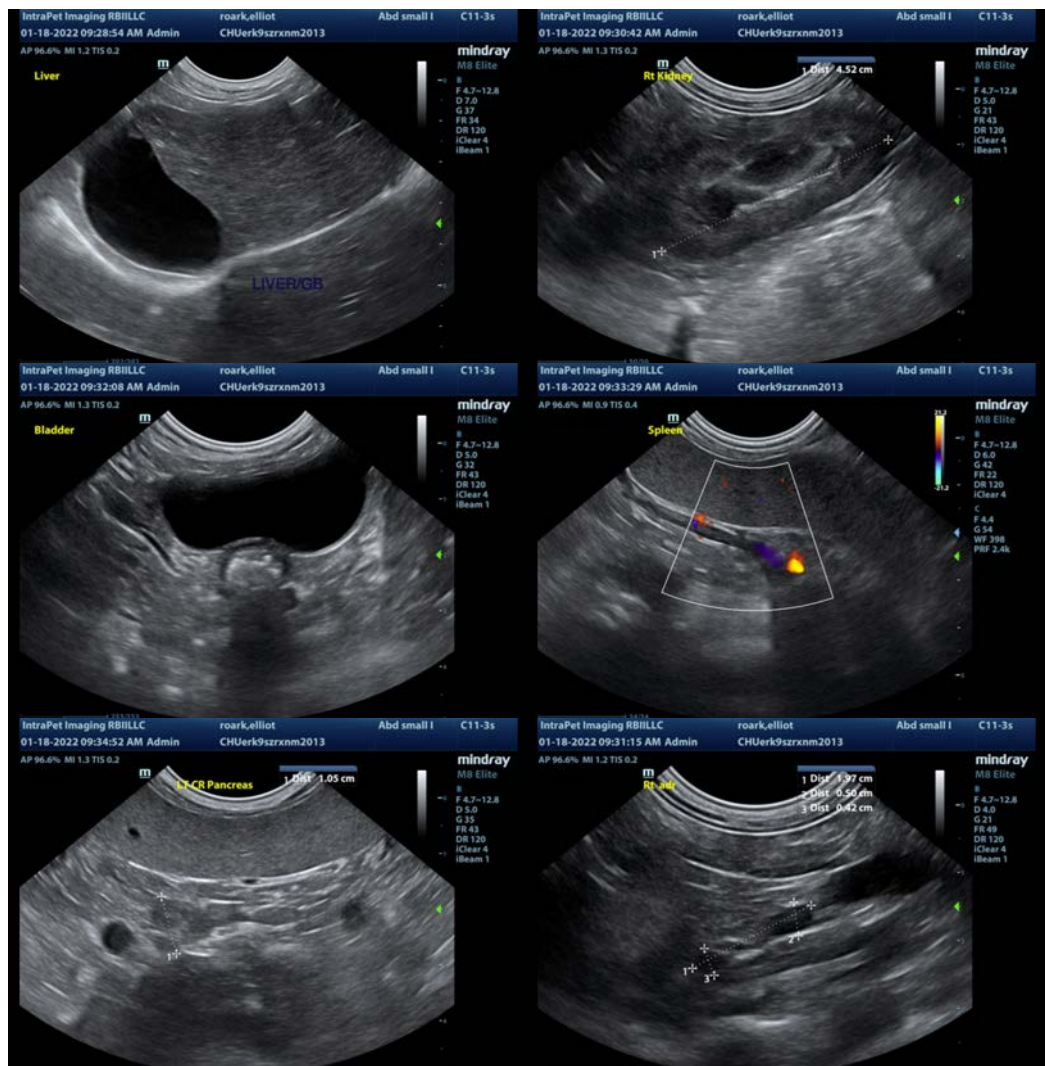
- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Prominent, somewhat hypoechoic pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation

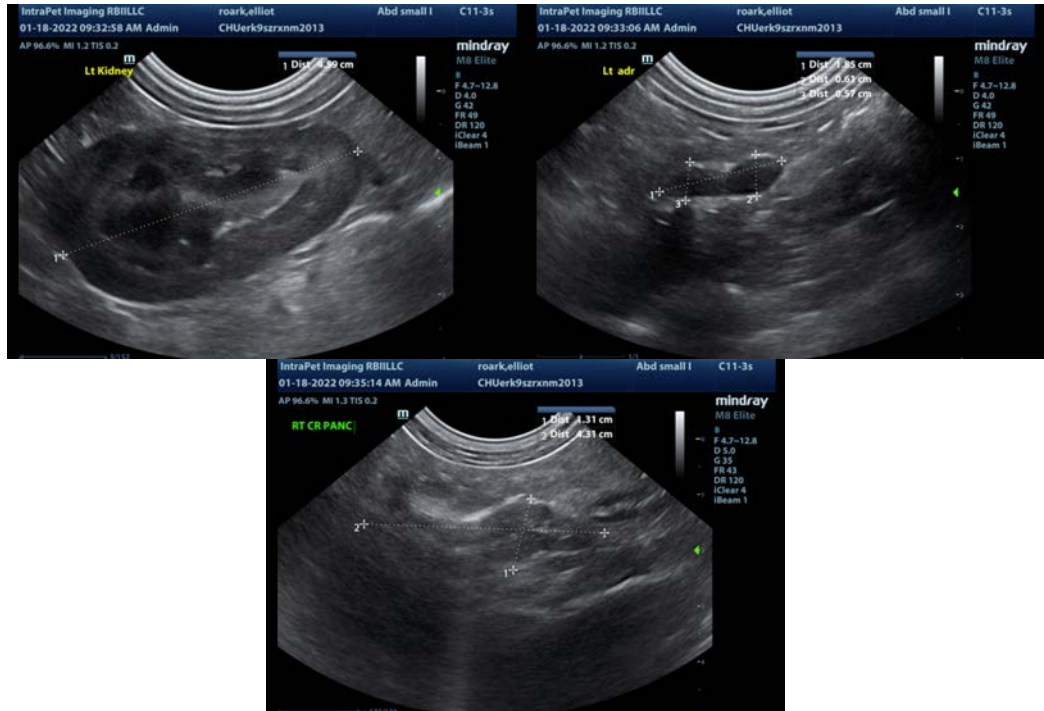
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal gastrointestinal lesions were observed. Unfortunately, ultrasound can be insensitive in picking up some types of diffuse small intestinal disease. The pancreas is somewhat prominent in both limbs, and chronic, intermittently flaring pancreatitis is possible. Additionally, the liver appears somewhat large and heterogeneous. If liver enzymes are normal, then this could be normal for this individual. If they are elevated, then consider a liver function test and possibly a fine needle aspirate.

- Consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- Consider a diet trial with either a bland diet (already done), ideally low-fat. If symptoms persist, you could consider a novel protein or hydrolyzed protein prescription diet.
- Recommend chronic probiotic therapy.
- If signs persist, you could consider obtaining GI biopsies.

An obvious lesion in the area of the pylorus is not visualized. This could appear abnormal due to the prominent pancreas. Additionally, there are some areas of pylorus that are not visible due to gas shadowing, etc. If this area is of concern, then you could consider alternate imaging (CT scan) or surgical GI biopsies and evaluation of this area.





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.

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