

**DATE PRESENTING CLINICAL SIGNS**

7/20/23

Chronic diarrhea/soft stool since purchased from breeder. Multiple bouts of Giardia and Cystoisospora- both treated successfully based on negative fecals, but then re-infection. Owner reports ravenous appetite with on average 6 bowel movements per day. Patient is small and skinny for age/breed.

PATIENT

Boba Arnold

SPECIES

Canine

BREED

Boxer

SEX

Neutered Male

AGE

3/22/22

WEIGHT

38 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Alexander AH

REFERRING VET

Dr. Alexander

INVOICE

44213

Current Medications: None currently, but considering Ultamino food trial, low dose pred, metro, +/- Enro if warranted/recommended.

Lab Results: See attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Torbugesic/Acepromazine IM.

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 visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (6.04 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.

The right kidney has a normal shape and size (5.55 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 0.48 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 0.77 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 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 <0.7cm 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 measures 0.26 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 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. There are occasional prominent mesenteric lymph nodes. One such lymph node measures 0.58 cm x 1.59 cm. The omentum is generally of normal 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.
- Prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

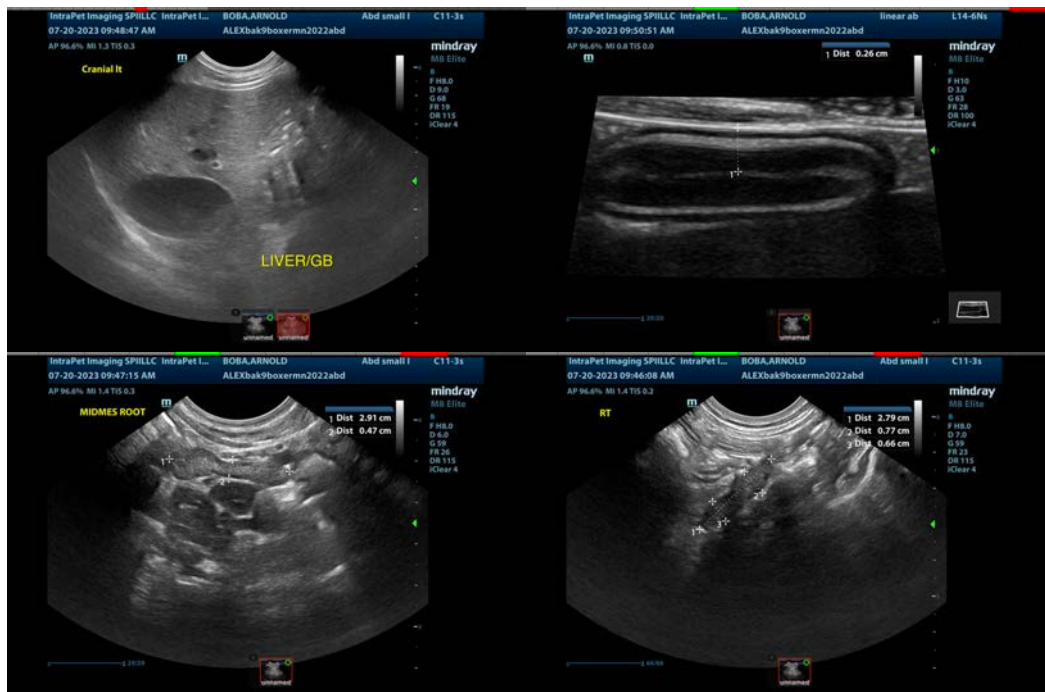
Today's scan is relatively normal. There are many causes for chronic diarrhea that cannot be diagnosed by ultrasound alone.

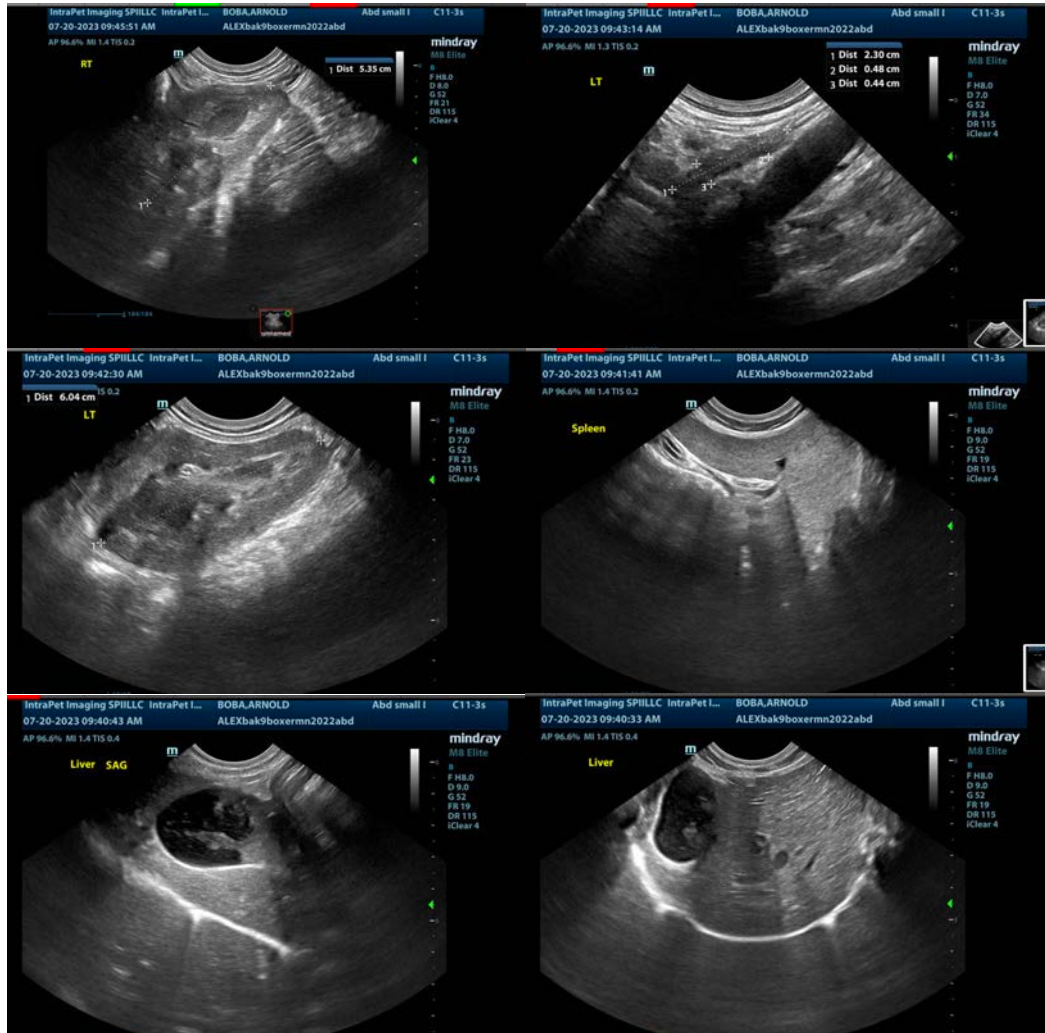
In a young dog with chronic diarrhea, consider such differentials as food allergy/dietary intolerance, GI parasitism, dysbiosis, dietary indiscretion, pancreatitis, exocrine pancreatic insufficiency, and much less likely IBD or intestinal neoplasia.

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease. (An abbreviated GI panel was performed. If this has not been done in the last 6 months, consider repeating.)
- Recommend chronic probiotic therapy.

These cases can be very challenging. I would likely recommend discontinuation (tapering) the steroids, and an ACTH stimulation test once off all corticosteroids for at least two weeks. Additionally, I would recommend a hydrolyzed protein diet in the case of a food allergy/dietary sensitivity, and if this pet has seen several rounds of systemic antibiotics (including Metronidazole), I would consider the possibility of more aggressive treatment for dysbiosis (if this clinically makes sense) and consider a fecal transplant. If there is no response to empirical therapies, I would consider referral to a veterinary internal medicine specialists to discuss the possibility of endoscopy versus further diagnostics/therapeutics.

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.

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