

**DATE PRESENTING CLINICAL SIGNS**

1/4/2022

History: Vomiting and weight loss began in April 2021. Labs performed and changed diet. In June 2021, presented for swollen penis and diarrhea w/ blood. Low protein. Treated with prednisone, Cefpodoxime, Metro- recovered and diagnosed with chronic enteropathy/lymphangiectasia. Diet change helped and weight increased. December 2021, he presented with weight loss, loss of appetite, watery stools.

PATIENT

Sniper Steen

SPECIES

Canine

BREEDChesapeake Bay
Retriever**SEX**

Male, intact

AGE

6/15/2016

WEIGHT

80.5 lbs.

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

Rachel Brillhart RDMS

HOSPITAL NAME

Fallston VC

REFERRING VET

Dr. Ullman

INVOICE

12778

Current Medications: 4/22/21- Amoxi 1000mg BID x 10 days. 6/4/21- Prednisolone 20mg BID x 7 days, SID x 14 days, EOD until gone, Cefpodo 300mg SID x 8 days, Metronidazole 1500mg SID x 5 days. 10/26/21- Prednisolone 20mg #40- give 1 tab every 12 hrs for 1 week then 1 tab daily for 1 week then 1/2 tab daily for 1 week then 1/2 tab every other day. 12/22/21- Metronidazole 500mg BID x 10 days, Diagel. Owner reports currently NOT on Prednisone.

Lab Results: 4/22/21 Bile acids= normal and panhypoproteinemia. 6/4/21- Panhypoproteinemia, Brucellosis negative. 7/21/21 protein levels are improved but not normal yet. 8/24/21- protein levels have decreased. Attached separately.

Radiographs: 4/22/21- some gas pattern colon and small intestines but liver silhouette looks smaller than normal and stomach colon very far cranially; normal feces in colon; good detail. Rx Amoxi and new diet over wkend. 6/4/21- Radiograph normal. Attached separately.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Butorphanol (10 mg/ml) 0.72 ml IV Midazolam (5 mg/ml) 0.72 ml IV

Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is enlarged (5.04 cm in width) with a relatively normal shape. The parenchyma is hyperechoic to slightly heterogeneous in appearance. No distinct focal lesions are observed. The prostatic urethra is not overtly dilated.

The left kidney is normal size (8.10 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (7.55 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.58 cm at cranial pole) (0.61 cm at caudal pole) (3.26 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable.

Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.58 cm at cranial pole) (0.64 cm at caudal pole) (3.19 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of echogenic suspended debris is observed within the lumen, some of which is gravity-dependent and some of which is aggregated and suspended. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is distended with ingesta and some fluid. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with fluid and chyme. The small intestinal wall thickness is diffusely thickened (up to 0.46 cm) with a normal layering pattern. There is evidence of mucosal fogging and occasional speckling in some segments. Discreet masses are not identified. The wall of the descending colon is mildly thickened (up to 0.39 cm) with retention of the normal layering pattern. The descending colonic lumen contains liquid appearing fecal material. No obstructive disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The mesentery throughout the mid-abdominal cavity is hyperechoic. Trace free fluid is observed. A few prominent to enlarged medial iliac and sublumbar lymph nodes are visualized, the largest measuring 2.48 x 1.28 cm.

Other

The testicles are subjectively normal in size (left testicle 3.74 x 2.10 cm; right testicle 3.42 x 1.89 cm) and symmetrical. Hyperechoic to mineralized foci are observed within the parenchyma, more so on the left side. The parenchyma is otherwise homogeneous in appearance. No nodules are seen.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The clinical history and the sonographic changes are most consistent with a protein-losing enteropathy. Differentials include inflammatory bowel disease, lymphangiectasia, infectious/parasitic disease, infiltrative neoplasia (i.e., lymphoma), other.
- Peritonitis is present, likely secondary to bowel pathology.
- The caudal abdominal lymphadenopathy may be secondary to lymphoid hyperplasia, reactive lymphadenitis or infiltrative neoplasia (i.e., lymphoma).

Secondary Findings:

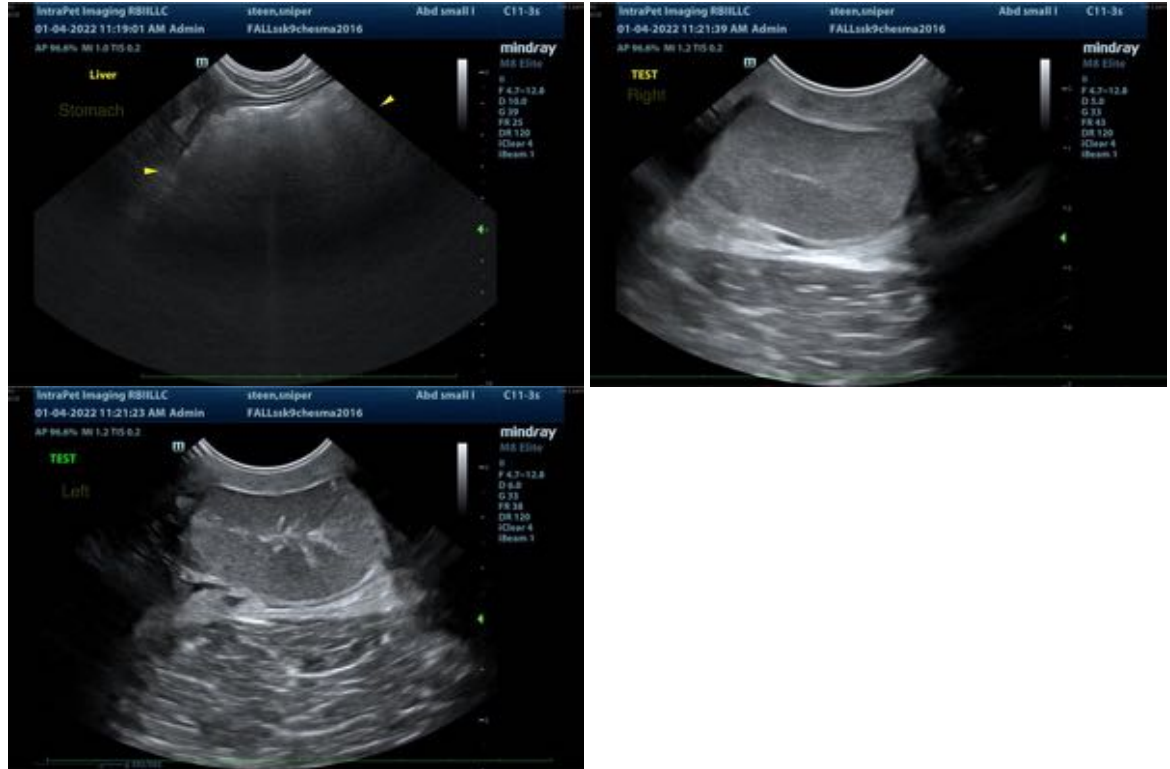
- The prostate changes are most consistent with benign prostatic hyperplasia. Bacterial prostatitis is also a differential but considered unlikely in the absence of lower urinary tract signs.
- The hyperechoic testicular foci likely represent benign, age-related dystrophic mineralization.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- To get a definitive diagnosis, surgical gastrointestinal biopsies are recommended. If the patient is to undergo surgery, castration can be performed concurrently.
- A malabsorption panel including serum cobalamin, folate, TLI and PLI as well as a fecal evaluation for ova and giardia should also be considered along with prophylactic deworming with Fenbendazole.
- Three-view thoracic radiographs should be performed prior to anesthesia, particularly given that a hypoalbuminemic state can result in third spacing of fluids.
- To further evaluate for concurrent causes of hypoalbuminemia, consider the following:
 1. UPC (if proteinuria is present).
 2. A post-prandial serum bile acids (if not already performed)
 3. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended







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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)
Andrea.nicastro@sonopath.com