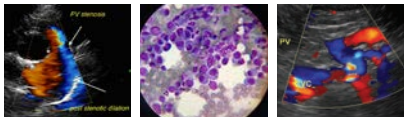
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

2/10/23

PATIENT

Brodi Cero

SPECIES

Canine

BREED

Malti Poo

SEX

Neutered Male

AGE

5/10/11

WEIGHT

13 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Honeygo AH

REFERRING VET

Dr. Wright

INVOICE

45057

PRESENTING CLINICAL SIGNS

Weight loss/ got into the trash 3 weeks ago- passed tampon- and again last week (no known foreign body ingestion). abdomen distended- ascites. eating OK

Current Medications: 2/09 metronidazole 50 mg bid; sent home with couple cans of l/d (medium chain triglycerides)- not sure if low fat i/d would have been a better guess
Lab Results: low lymphocytes, low albumin and globulin. hazy abdomen/ fluid
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Declined.
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 (1.27 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 (3.59 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 (3.71 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 0.43 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 0.36 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 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

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 uniform diameter with minimal fluid distension. Wall thickness is moderately increased. Duodenum wall measures 0.44 cm. Jejunum wall measures 0.37 cm. The bowel wall appears somewhat fuzzy with mucosal striations and speckling. Bowel loops follow a typical curvilinear path. Some areas have reduced detail of wall layering. 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

There is a large amount of free abdominal fluid. No lymphadenopathy. The omentum is diffusely hyperechoic.

ULTRASONOGRAPHIC FINDINGS

- Thickened small intestine with mucosal fogging, speckling, and striations – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia. Bright mucosal speckling has been postulated to represent dilated lacteals or focal accumulations of mucus, cellular debris, etc.. in the mucosal crypts

- Moderate to large volume free abdominal fluid – Findings are likely secondary to the hypoalbuminemia reported.

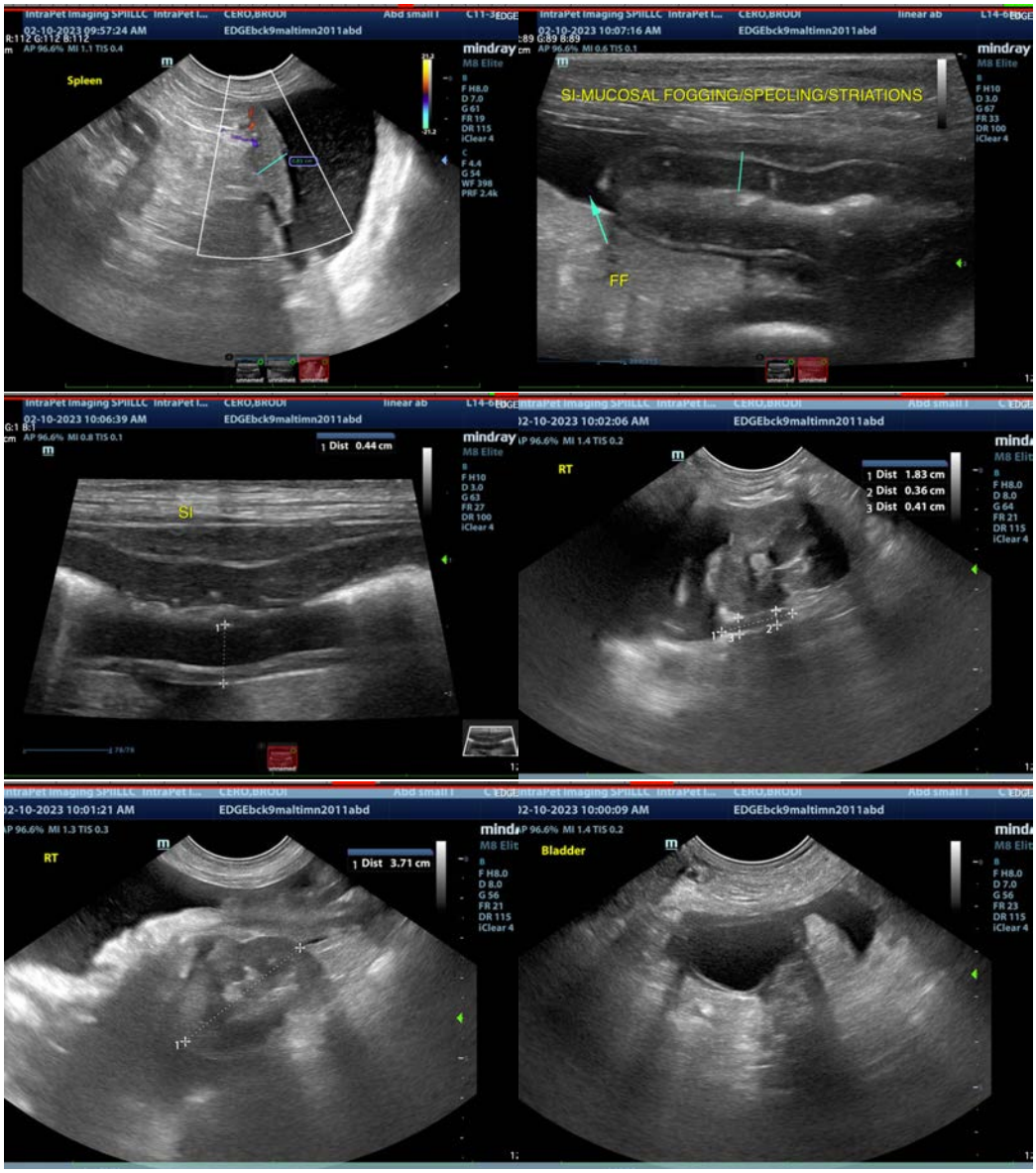
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

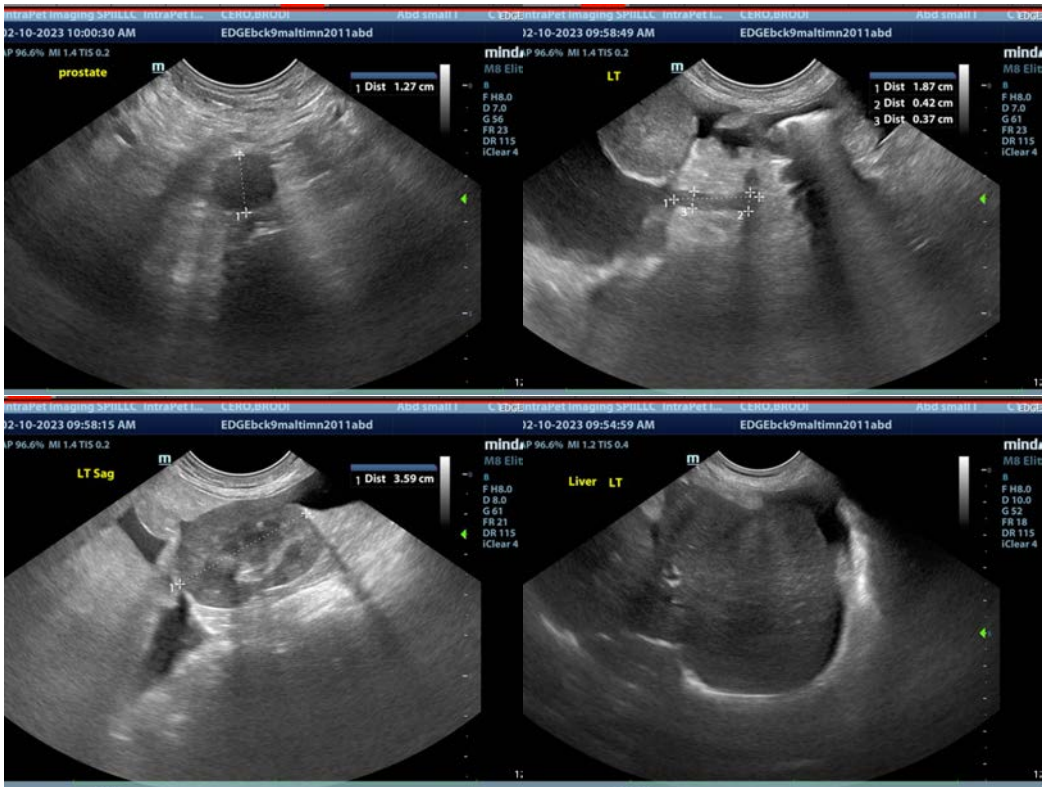
The small intestine appears diffusely thickened with evidence of mucosal fogging and speckling. These findings combined with the moderate to large amount of anechoic free abdominal fluid and the low albumin reported are concerning for a likely protein losing enteropathy. In general, the most common differentials for a protein losing enteropathy would include severe IBD, lymphangiectasia, or intestinal neoplasia. Unfortunately, biopsy is necessary to differentiate between these processes and to determine optimal therapy. It is possible that the reported dietary indiscretion unmasked this process.

Additionally, I would recommend a liver function test and screening urine for excess protein, looking for concurrent causes of hypoalbuminemia.

- Recommend either a hypoallergenic (hydrolyzed protein or novel protein diet) or ultra low-fat diet (Royal Canin GI low-fat or Hills i/d low-fat).

- 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.
- Recommend chronic pre- and probiotic therapy.
- Consider abdominocentesis only if the patient is exhibiting discomfort from the amount of fluid present.
- Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.
- Recommend endoscopic GI biopsies.





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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