

**PATIENT**

Ella Cardalle

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Spayed Female

**AGE**

7 Years

**WEIGHT**

80 Pounds

**INTERPRETED BY**Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)**IMAGING  
PERFORMED BY**

Tom McNeill

**HOSPITAL NAME**

SVS Imaging CT

**REFERRING VET**

WVRC - Dr. Afflerbach

**INVOICE**

39054

**DATE**

6/24/22

**PRESENTING CLINICAL SIGNS**

Approximatley 1 month history of chronic diarrhea, concern for progression to PLE and new ascites in the past 2 days. Continued hyporexia, anorexia; progressive weakness and lethargy for the past 2 days. rDVM started metronidazole, prednisone, azotioiprine, clopidogrel without improvement. Abnormal PE/Chem/CBC/UA Results: No previous imaging. Albumin initially 1.1, then increased to 1.3. Mild

**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 left kidney has a normal shape and size (7.46 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 (7.54 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 0.60 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 0.41 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.

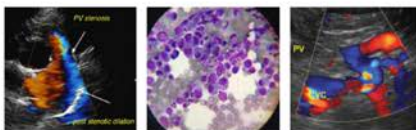
**Liver**

The liver is large in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in 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 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.

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The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measured 0.44 cm. Jejunum wall measured 0.50 cm. Mucosal fogging is visualized in the thicker segments of jejunum. 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***

There is a large amount of anechoic free fluid. There are prominent mesenteric lymph nodes visualized measuring 1.0 cm. Additionally, the medial iliac lymph nodes are visualized. The right measures 0.91 cm. The left measured 1.11 cm. The mesentery appears generally hyperechoic.

**ULTRASONOGRAPHIC FINDINGS**

- Large, hyperechoic liver – The diffuse hepatic changes are non-specific and can be seen with vacuolar hepatopathy, reactive change, nodular hyperplasia or, less likely, inflammatory/immune-mediated disease, infiltrative neoplasia, or other hepatopathy.
- Moderate small intestinal thickening – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia.
- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- Large volume anechoic free fluid – recommend fluid analysis and cytology.

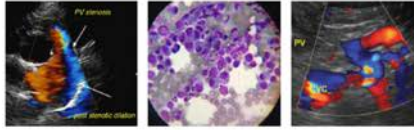
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No focal lesions are visualized on today's scan, but the appearance of the bowel favors the likelihood of a protein losing enteropathy. Recommend a liver function test and a urine protein to creatinine ratio to look for evidence of concurrent hepatic dysfunction or protein loss from the kidneys. Consider a GI panel to Texas A&M to look for additional evidence of underlying GI disease.

Unfortunately, at this point, I suspect a biopsy of the bowel is necessary to obtain a definitive diagnosis, the most likely differentials being lymphangiectasia, severe IBD, or intestinal neoplasia, although other differentials exist. A fine needle aspirate of a mesenteric lymph node could be considered, but these lymph nodes generally have a more reactive appearance than a neoplastic appearance. Recommend submission of some abdominal fluid for fluid analysis and cytology to confirm there is no additional information to be gained.

These cases are challenging at the point where they are sick and not responsive to steroids. Hopes for a significant long-term improvement are relatively low. You could consider administering albumin and alternative therapy such as Octreotide, but experience is limited.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.



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Monitor calcium and magnesium levels, as these can often be low and contribute to the muscle weakness described.

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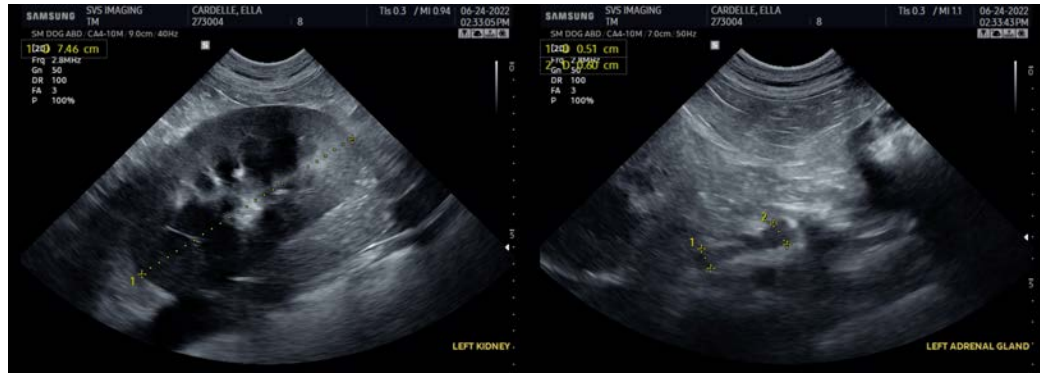
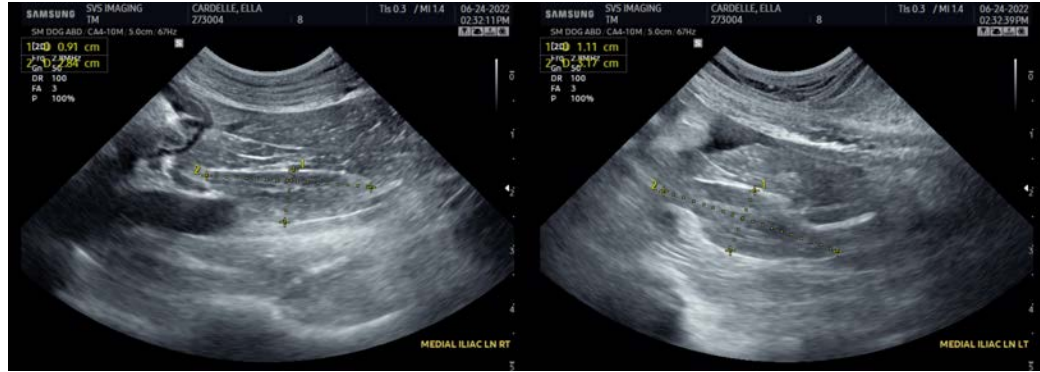
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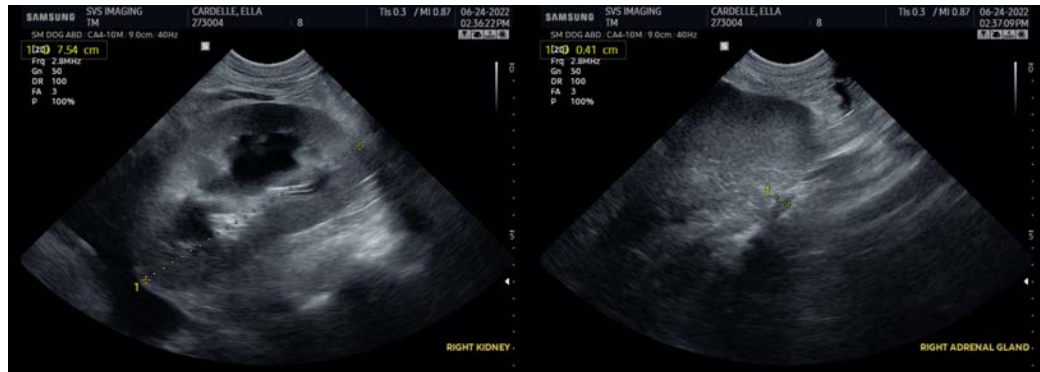
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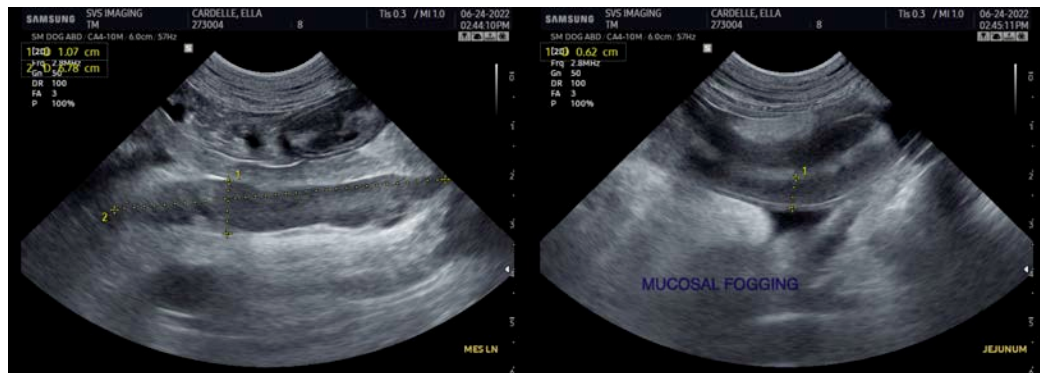
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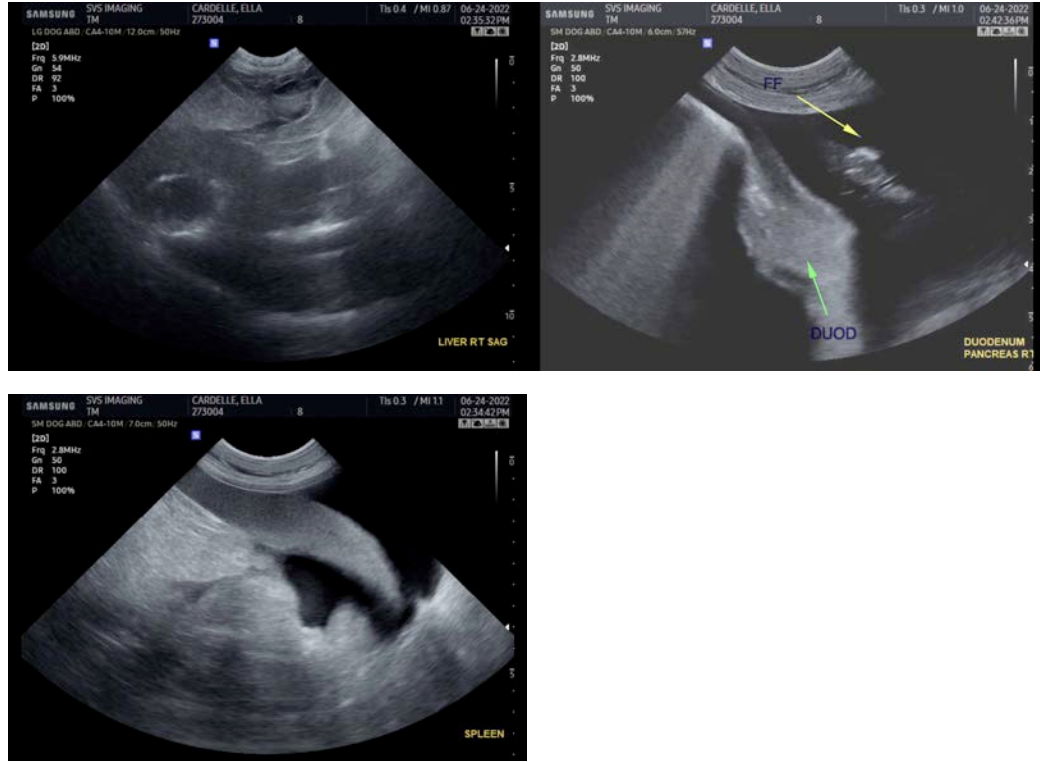
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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