

**PATIENT PRESENTING CLINICAL SIGNS**

Ayla Cullen History: Chronic diarrhea, one episode of vomiting, pu/pd. Current medications: Metronidazole 250 mg po BID, Forti Flora, prednisone 1mg/kg BID.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Low albumin (1.6). All other BW WNL.

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED** *Urinary System*

Labr Retriever Mix

The urinary bladder wall is 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. The region of the trigone and the visible portion of the proximal urethra are normal.

**SEX**

Spayed Female

The left kidney is normal size (5.65 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**AGE**

8 years

The right kidney is normal size (6.32 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

43.4 lbs

*Adrenal Glands*

The left adrenal gland is normal size (0.52 cm at cranial pole) (0.59 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**INTERPRETED BY**

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

The region of the right adrenal gland is evaluated. No obvious pathology is observed.

*Spleen*

The spleen is normal in size (1.13 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

*Liver*

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion.

**HOSPITAL NAME**

Norfolk County VS

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

**REFERRING VET**

Aurora Richards, DVM

*Gastrointestinal*

The gastric lumen is moderately distended with ingesta. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with chyme. The small intestinal wall is borderline thickened (up to 0.48 cm). There is evidence of mucosal striations in some segments. Discreet masses are not identified. The colonic wall is normal. The colonic lumen contains shadowing fecal material. There is no evidence of an obstructive pattern.

**INVOICE**

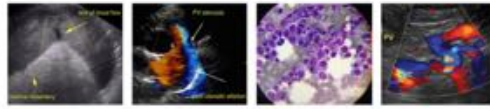
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**DATE**

12.23.22

*Pancreas*

A portion of the pancreas is obscured by the gastric distention. In the visualized portions no obvious pathology is observed.



**PATIENT**

Ayla Cullen

**Free Abdomen**

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

**SPECIES**

Canine

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- The patient's clinical history in conjunction with the sonographic bowel changes are most concerning for a protein-losing enteropathy. Top differentials include lymphangiectasia, inflammatory bowel disease, infectious/parasitic disease, emerging lymphoma (less likely), other.
- The presence of ingesta in the gastric lumen despite fasting is suggestive of delayed gastric emptying.

**BREED**

Labr Retriever Mix

**SEX**

Spayed Female

**Secondary Findings**

- The hyperechoic liver is most consistent with vacuolar hepatopathy (i.e., steroid-induced, idiopathic, endocrine).
- Mild bilateral age-related renal changes with subtle dystrophic mineralization

**AGE**

8 years

**WEIGHT**

43.4 lbs

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Fecal evaluation for ova and Giardia
- Consider prophylactic deworming with Fenbendazole.
- A GI panel including serum cobalamin, folate, TLI and PLI is also recommended.
- A low-fat limited antigen diet should also be considered.
- Ultimately, surgical gastrointestinal biopsies would be necessary to get a definitive diagnosis. Surgical biopsies would be ideal in that all areas of bowel can be accessed.
- To evaluate for other concurrent causes of hypoalbuminemia, consider the following:
  1. UPC (if proteinuria is present)
  2. Resting cortisol level to screen for atypical hypoadrenocorticism
  3. Pre-and postprandial serum bile acids to assess for occult hepatic dysfunction

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 ACVIM (Small Animal  
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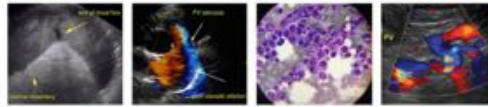
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**PATIENT**

Ayla Cullen

**SPECIES**

Canine

**BREED**

Labr Retriever Mix

**SEX**

Spayed Female

**AGE**

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**WEIGHT**

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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.

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