

**PATIENT PRESENTING CLINICAL SIGNS**

**Luna Short** 9 year old FS Beagle Mix. Presented for annual exam in early May 2022. BW showed Alb 2.7 -low end of normal and Ca 8.5 low, corrects to 9.3 normal, rest wnl. No clinical signs at home - recommended repeat BW in 1 month to track values. Returned 6/24/22 for vomiting and mild lethargy. Bw showed TOTAL PROTEIN 3.2 (LOW) 5.0-7.4 g/dL, ALBUMIN 1.7 (LOW) 2.7-4.4 g/dL, GLOBULIN 1.5 (LOW) 1.6-3.6 g/dL, CALCIUM 7.6 (LOW) 8.9-11.4 mg/dL, CORRECTED CALCIUM 9.4, MAGNESIUM 1.2 (LOW) 1.5-2.5 mEq/L, CHOLESTEROL 85 (LOW) 92-324 mg/dL, PrecisionPSL 154 (HIGH) 24-140 U/L, Neutrophils 11,316 (HIGH) 82 2,060-10,600 /uL. Rest wnl. Responded initially to 1 dose of cerenia and starting proviable then over the last 2 days developed a large amount of flatulence with watery diarrhea and energy has decreased slightly. She also started to cough after eating and is drinking an excessive amount of water. O only feeding canned food at the moment but seems to be eating well. Scant free fluid seen in abdomen and mild amount of free fluid in chest - obtained sample - pending fluid analysis. Obtained urine for UA pending as well. Gave 1 mg/kg dose of Dex SP and starting on 40mg/m2 of pred, metronidazole, gave Vitamin B12 injection, panacur to go home.

**SPECIES** Canine

**BREED** Beagle Mix

**SEX** Spayed Female

**AGE** 9 years

**Abnormal PE/Chem/CBC/UA Results:** early May 2022. BW showed Alb 2.7 -low end of normal and Ca 8.5 low, corrects to 9.3 normal. No clinical signs at home - recommended repeat BW in 1 month to track values. Returned 6/24/22 for vomiting and mild lethargy. Bw showed TOTAL PROTEIN 3.2 (LOW) 5.0-7.4 g/dL, ALBUMIN 1.7 (LOW) 2.7-4.4 g/dL, GLOBULIN 1.5 (LOW) 1.6-3.6 g/dL, CALCIUM 7.6 (LOW) 8.9-11.4 mg/dL, CORRECTED CALCIUM 9.4, MAGNESIUM 1.2 (LOW) 1.5-2.5 mEq/L, CHOLESTEROL 85 (LOW) 92-324 mg/dL, PrecisionPSL 154 (HIGH) 24-140 U/L, Neutrophils 11,316 (HIGH) 82 2,060-10,600 /uL

**WEIGHT ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

52.4 lbs

**Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

Left kidney is normal is size (5.88 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**IMAGING PERFORMED BY**

Dr. Schanche

Right kidney is normal is size (6.19 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**HOSPITAL NAME**

TotalBond Vet

**Adrenal Glands**

**REFERRING VET**

Dr. Schanche

Left adrenal gland measures 0.3-0.4 cm thick. It is not fully visualized in these images, but the area is examined without evident of pathology.

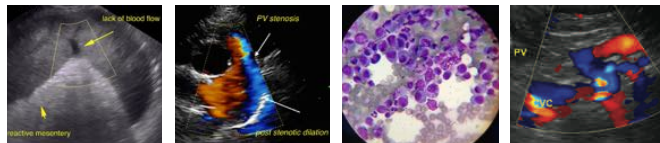
Right adrenal gland is not visualized.

**INVOICE**

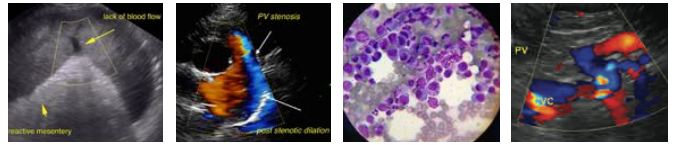
31236

**DATE**

6/24/22



<b>PATIENT</b>	<b>Spleen</b>
Luna Short	Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.
<b>SPECIES</b>	
Canine	<b>Liver</b>
<b>BREED</b>	Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.
Beagle Mix	
<b>SEX</b>	Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.
Spayed Female	
<b>AGE</b>	<b>Gastrointestinal</b>
9 years	The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.
<b>WEIGHT</b>	Small intestine is diffusely mildly thick with a relatively thick mucosa compared to other layers. Normal wall layering is preserved; however, the mucosa is more echogenic than normal and contains hyperechoic striations perpendicular to the lumen. The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.
52.4 lbs	The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas. The large is moderately fluid distended as is consistent with diarrhea.
<b>INTERPRETED BY</b>	
Beth Johnson, DVM DACVIM	
<b>IMAGING PERFORMED BY</b>	<b>Pancreas</b>
Dr. Schanche	The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.
<b>HOSPITAL NAME</b>	
TotalBond Vet	
<b>REFERRING VET</b>	<b>Free Abdomen</b>
Dr. Schanche	Bicavitary free fluid is appreciated. There is no lymphadenopathy noted in these images.
<b>INVOICE</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
31236	<b>Primary Findings</b>
<b>DATE</b>	<b>Lymphangiectasia</b> – Small bowel findings are most consistent with lacteal dilation. These findings can be observed with protein-losing enteropathies caused by either primary lymphangiectasia or primary
6/24/22	



**PATIENT**

Luna Short

infiltrative inflammatory disease with secondary lymphangiectasia. Infiltrative neoplasia is possible but considered less likely. Histopathology is necessary to definitively determine underlying cause.

**Bicavitory free fluid** likely secondary to low oncotic pressure owing to the low albumin.

**SPECIES**

Canine

**Secondary Findings**

**BREED**

Beagle Mix

**Gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

**SEX**

Spayed Female

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**AGE**

9 years

1. A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

Ideally, biopsies of the GI tract are recommended to definitively diagnose and therefore manage the infiltrative bowel process.

**WEIGHT**

52.4 lbs

If biopsies cannot be obtained safely due to low albumin or patient stability, etc., empirical therapies could include diet change to an ultra-low fat diet, empirical deworming with a 5 day course of Panacur, cobalamin supplementation (unless cobalamin level is evaluated and supplementation is not warranted) a probiotic and prednisolone (if not contraindicated based on patient contraindications, co-morbidities, etc.). Calcium monitoring, and supplementation if necessary, is also recommended.

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

2. Urinalysis (as is already reportedly pending) and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

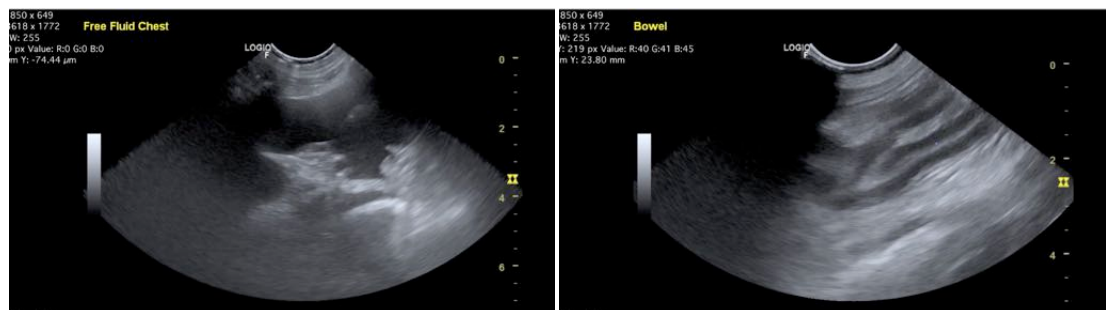
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Dr. Schanche

3. In the meantime, given the patient's reported respiratory signs therapeutic thoracocentesis is recommended to offer relief.

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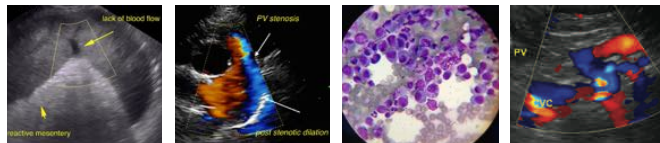
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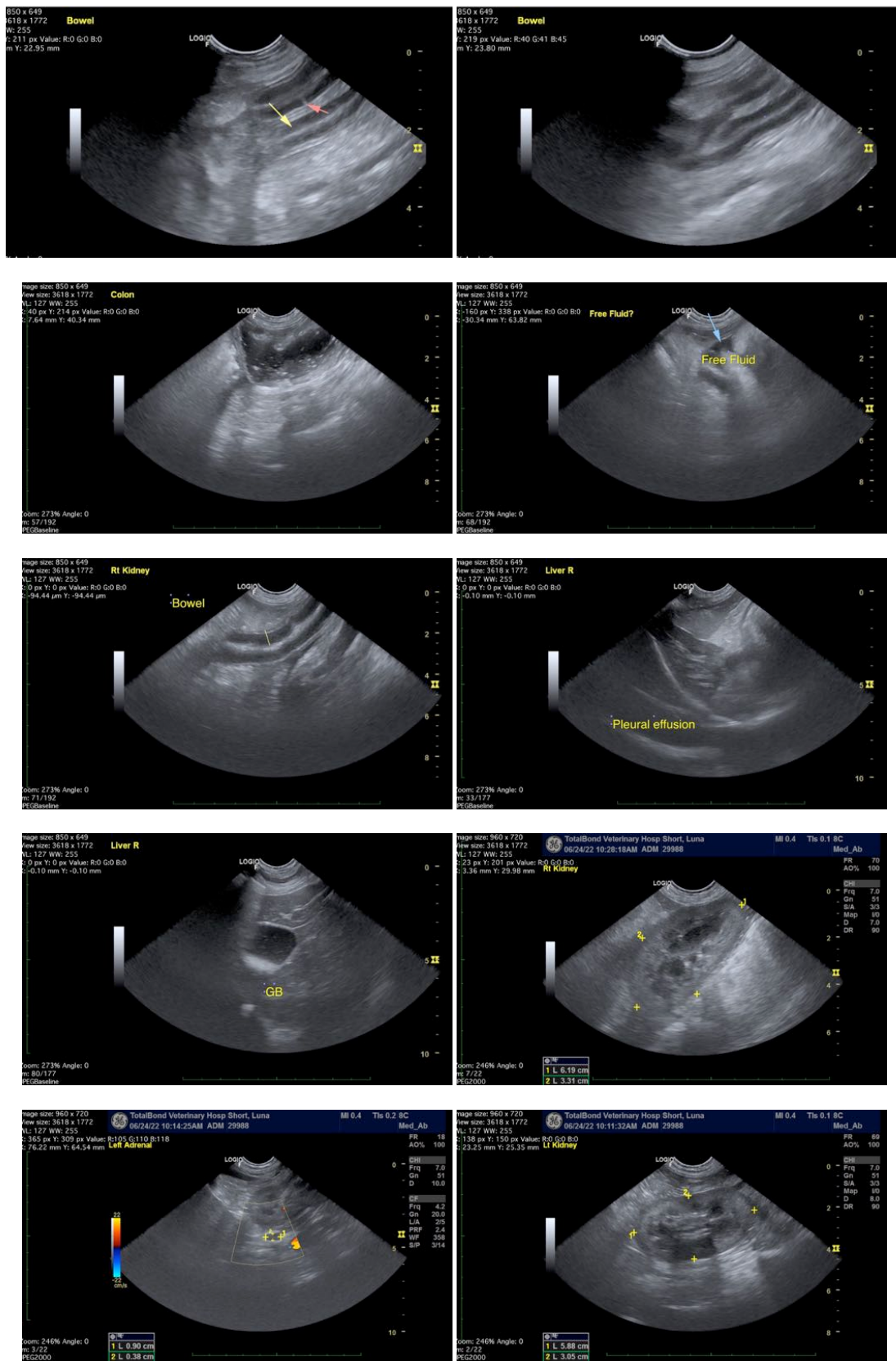
Dr. Schanche

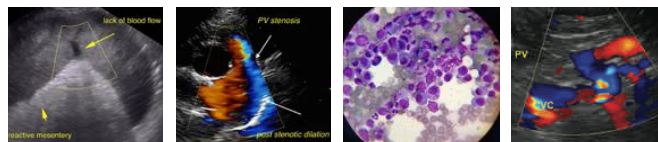
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**PATIENT**

Luna Short

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.

**SPECIES**

Canine

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.

**BREED**

Beagle Mix

**Beth Johnson, DVM DACVIM**

Beth.Johnson@SonoPath.com

**SEX**

Spayed Female

**AGE**

9 years

**WEIGHT**

52.4 lbs

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

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