



PATIENT

Bo Schroeder

SPECIES

Canine

BREED

Husky

SEX

Male

AGE

7

WEIGHT

43 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Reser

HOSPITAL NAME

Harvest Hills VH

REFERRING VET

Dr. Reser

INVOICE

46232

DATE

3/28/23

PRESENTING CLINICAL SIGNS

Dog has had vomiting and diarrhea for past month. Diarrhea is liquid, did not respond to previous treatments including diet modification, metronidazole, tylosin, aminobenzamide, cerenia. Now is having melena, decreased appetite, and weight loss (5% or so)

Abnormal PE/Chem/CBC/UA Results: Rads showed only moderately dilated stomach. Barium study showed no blockages. CBC/Chem showed no significant changes, including electrolytes. ALB was 2.8. FF neg, dog is doing a panacur trial and added on omeprazole and Carafate to regimen. We are waiting on A&M GI panel results including resting cortisol.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended with anechoic urine. The Bladder wall is diffusely mildly thickened (0.87 cm in the apical region), and the mucosa is mildly irregular. The trigone, ureteral papillae, and visible urethra (to a depth of 2cm) appear normal with no evidence of severe mucosal irregularities, masses or cystic calculi. Findings are most consistent with bacterial cystitis or lack of urine distension. Recommend urinalysis and culture.

The prostate is large in size (3.68 cm in height in the sagittal view) but has a regular shape with smooth external margins. The parenchyma is hyperechoic and heterogenous but no discrete focal lesions are present. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (5.1 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 (5.34 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 0.63 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 region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect is visualized.

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.



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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.

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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 relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.48 cm. Jejunum wall measures 0.27 cm. Visualized peristalsis appears appropriate. There is one image where there is a questionable thickened bowel loop in the deep field. This could be artifact or a thickened focal bowel loop. The wall appears to measure at 0.69 cm.

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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 a brief view of the distal colon at the level of the urinary bladder, which subjectively appears thickened with wall measuring 0.47 cm.

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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.

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Free Abdomen

There is scant free abdominal fluid. There are numerous large isoechoic lymph nodes, primarily caudal to the stomach, but they can be viewed at the level of the colon as well. Examples measure 0.98 cm, 0.74 cm, and 1.22 cm in diameter. The omentum is of normal echogenicity.

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PRIMARY FINDINGS

- Questionable thickened bowel loop – This is a very brief image, so this could be artifactual, but consider the possibility of a focally thickened bowel loop.
- Thickened distal colon – This could be consistent with colitis, infiltration, infection, etc.
- Large, isoechoic mesenteric lymph nodes – Possible differentials include inflammation, infection, or reactive lymph nodes.

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SECONDARY FINDINGS

- The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.
- Large, hyperechoic, heterogeneous prostate – Findings are most consistent with benign prostatic hypertrophy +/- prostatitis.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Based on the history provided, a bleeding lesion in the gastrointestinal tract is strongly suspected. Often, mucosal erosions, etc. are very difficult to pick up with ultrasound. I could not definitively identify



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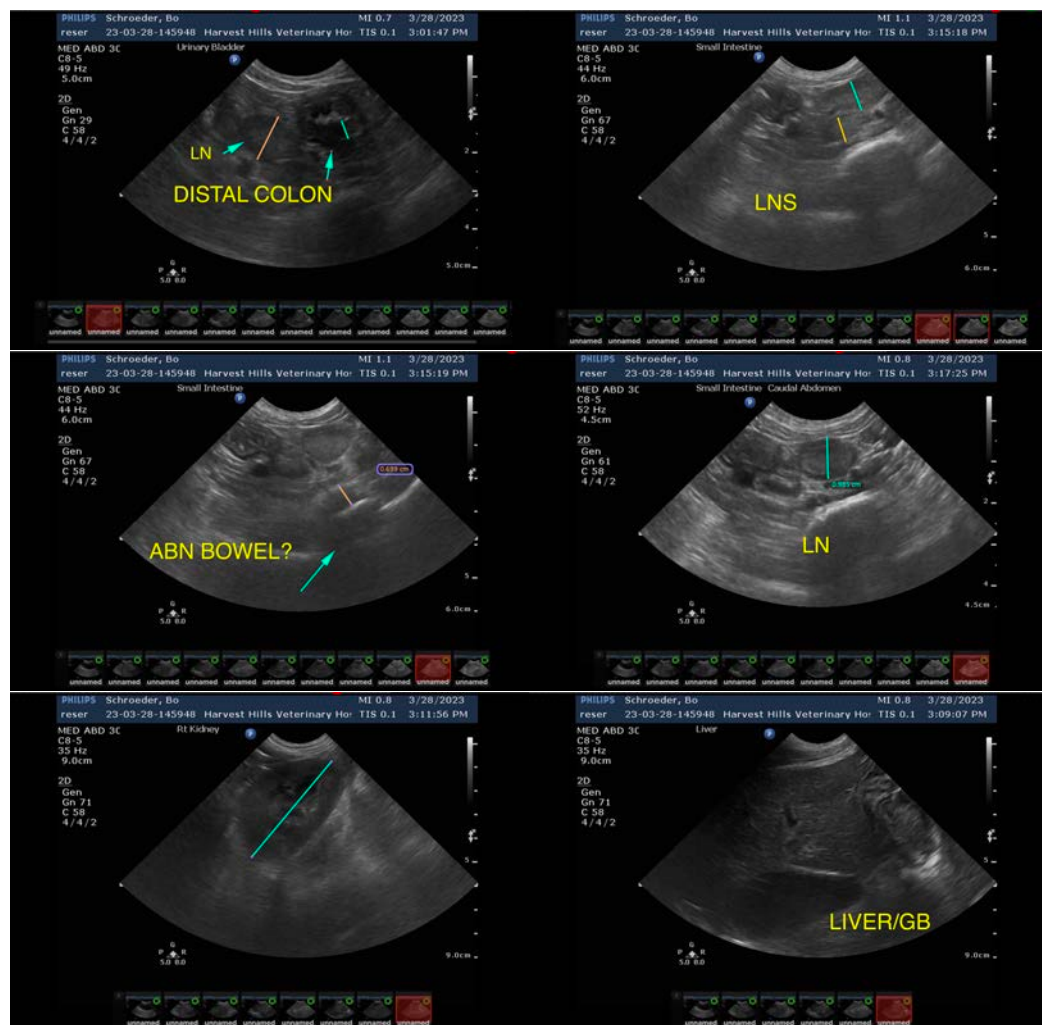
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a bowel mass, but there is a small shadow in one image that could possibly be consistent with a thickened bowel loop (or artifact?), and the distal colon appears thickened. Additionally, there are some prominent, somewhat isoechoic lymph nodes visualized caudal to the stomach, and one is imaged in the same plane as the distal colon. Consider a fine needle aspirate of one of these lymph nodes.

You've done a nice job imaging this patient and working it up. If symptoms persist, I suspect obtaining GI biopsies will be necessary. Endoscopic biopsies are very good at detecting mucosal erosions in the stomach and proximal small intestine. Additionally, they are good for obtaining colonic wall biopsies, but unfortunately, I suspect endoscopy would not evaluate the mid abdomen very well, and you would not be able to biopsy the mesenteric lymph nodes. Consider repeat imaging prior to obtaining biopsies in case a lesion becomes more obvious.





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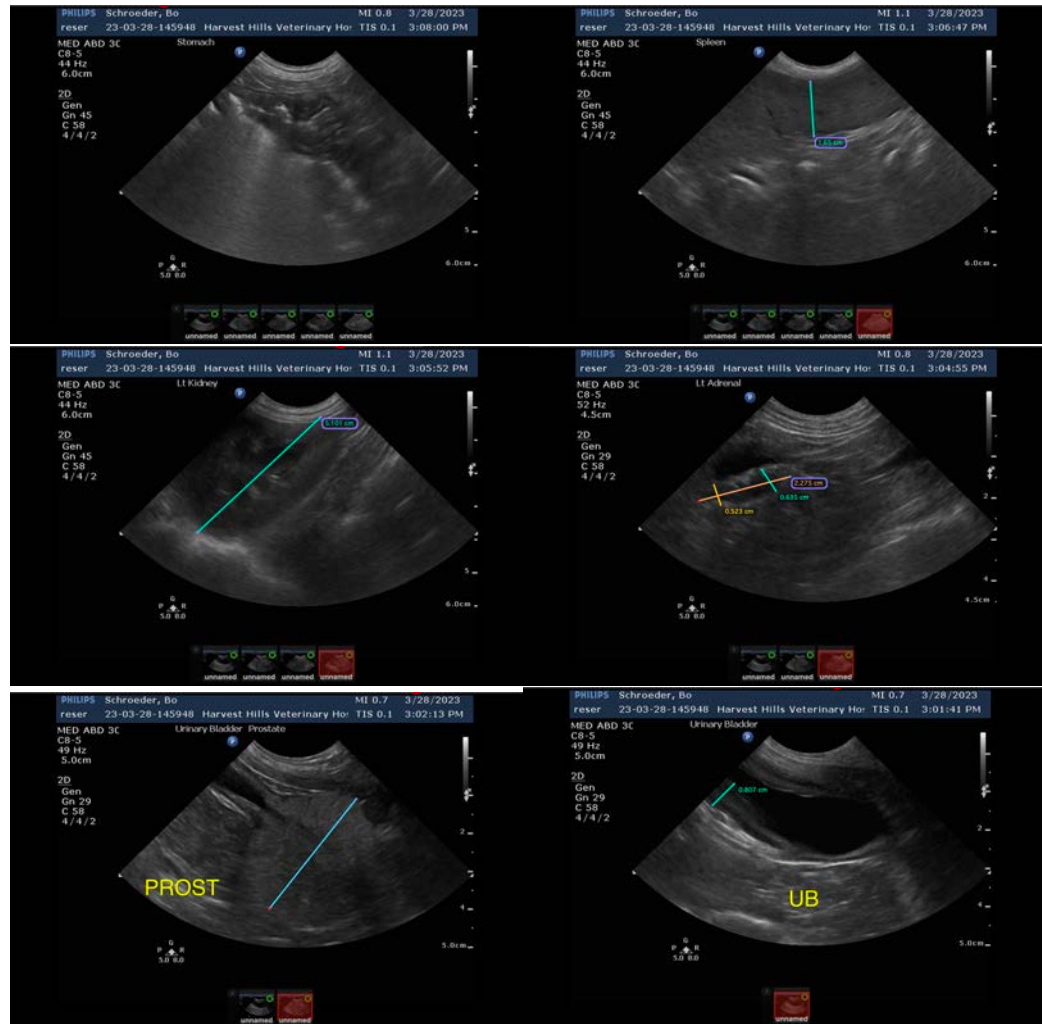
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

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