



## PATIENT

Farnsworth Hillebrand

## SPECIES

Feline

## BREED

Domestic Shorthair

## SEX

Neutered male

## AGE

12 years

## WEIGHT

7.8 lbs

## INTERPRETED BY

Alicia Angosto  
Guerrero, DMV,  
PgDip, MSc.

## IMAGING PERFORMED BY

Justin Eckenrode, DVM

## HOSPITAL NAME

Carlisle Small Animal  
VC

## REFERRING VET

Dr. Morrison

## INVOICE

74941

## DATE

4/28/26

## PRESENTING CLINICAL SIGNS

History: Major Medical Conditions : Weight loss, gassy  
History of chronic, progressive weight loss over the past few years. He was previously 14 pounds.  
- An abdominal ultrasound performed in September 2023 was reportedly normal.  
Primary concern or rule out: IBD/lymphoma, pancreatitis  
Abnormal PE/Chem/CBC/UA Results: NSF

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder is normally distended, with a thin and smooth wall. The urine is anechoic. The bladder neck and proximal urethra appear normal. No calculi or evidence of inflammatory or neoplastic changes are identified.

The left kidney measures 3.25×2.05 cm, with a cortical thickness of 0.33 cm in the sagittal plane. The right kidney measures 4.18×2.45 cm, with a cortical thickness of 0.40 cm in the sagittal plane. Both kidneys are normal in shape. Renal length is within expected limits for a cat (typically ~3.0–4.5 cm), although there is mild asymmetry, with the right kidney larger than the left. Cortical thickness is within normal limits (approximately 0.3–0.5 cm). The cortex is isoechoic relative to the liver parenchyma. The corticomedullary ratio is normal, and corticomedullary definition is preserved. No pyelectasia, nephrolithiasis, or hydronephrosis is identified. Color Doppler demonstrates a normal vascular pattern.

### Adrenal Glands

The left adrenal gland measures 0.31 cm at the cranial pole and 0.30 cm at the caudal pole, within normal limits (typically ≤0.4–0.45 cm in cats). The right adrenal gland was not confidently visualized.

### Spleen

Splenic thickness is 0.72 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

### Liver

The liver is subjectively normal in size, with sharp edges and a regular contour. The liver parenchyma looks uniform and isoechoic compared to the falciform fat, with a normal echotexture. No hepatic lymphadenopathy is observed.

The gallbladder lumen is normally distended. The wall is thin, and there is a moderate amount of biliary sludge. No dilation of the cystic duct or common bile duct is observed.



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## *Gastrointestinal*

The stomach is empty and folded, with a wall thickness of 1.06 mm and preserved layering (within normal limits for a non-distended feline stomach). The pylorus measures 4.31 mm, within normal limits. The jejunum measures 2.06–2.11 mm, within normal limits (reference ~2–3 mm), with preserved wall layering. Layer measurements: mucosa 1.35 mm, submucosa 0.49 mm, muscularis propria 0.35 mm. The muscularis-to-mucosa ratio is approximately 0.26, which is within normal limits (<0.5–0.6). The ileum measures 1.47 mm, within normal limits, with preserved layering. Layer measurements: mucosa 0.50 mm, submucosa 0.53 mm, muscularis propria 0.46 mm. The muscularis-to-mucosa ratio is approximately 0.92, which is increased compared to expected normal values. The ileocecal junction is not visualized. No ultrasonographic evidence of ileus, obstruction, inflammation, or foreign material is identified. The colon appears normal.

## *Pancreas*

The evaluated pancreatic regions do not show evidence of overt inflammation or neoplastic disease.

## *Free Abdomen*

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The iliac trifurcation is normal.

## PRIMARY FINDINGS

- Increased muscularis-to-mucosa ratio in the ileum (≈0.92)

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most relevant finding is the increased muscularis-to-mucosa ratio in the ileum, with otherwise normal intestinal wall thickness and preserved layering throughout the gastrointestinal tract. In cats, selective or disproportionate thickening of the muscularis layer—particularly when focal to the ileum—has been associated with chronic enteropathies, including both inflammatory bowel disease (IBD) and low-grade alimentary lymphoma. The preservation of normal wall layering and normal overall wall thickness slightly favors a chronic inflammatory process; however, the degree of muscularis prominence in the ileum (ratio approaching 1) is higher than typically expected in mild IBD and overlaps significantly with low-grade lymphoma.

Importantly, there is no associated lymphadenomegaly, no loss of layering, and no focal mass lesions, which reduces the likelihood of more advanced or high-grade neoplastic disease.

The remainder of the gastrointestinal tract is unremarkable, and there is no sonographic evidence of pancreatitis or overt hepatobiliary disease. The biliary sludge is considered incidental in the absence of clinical or biochemical cholestasis.



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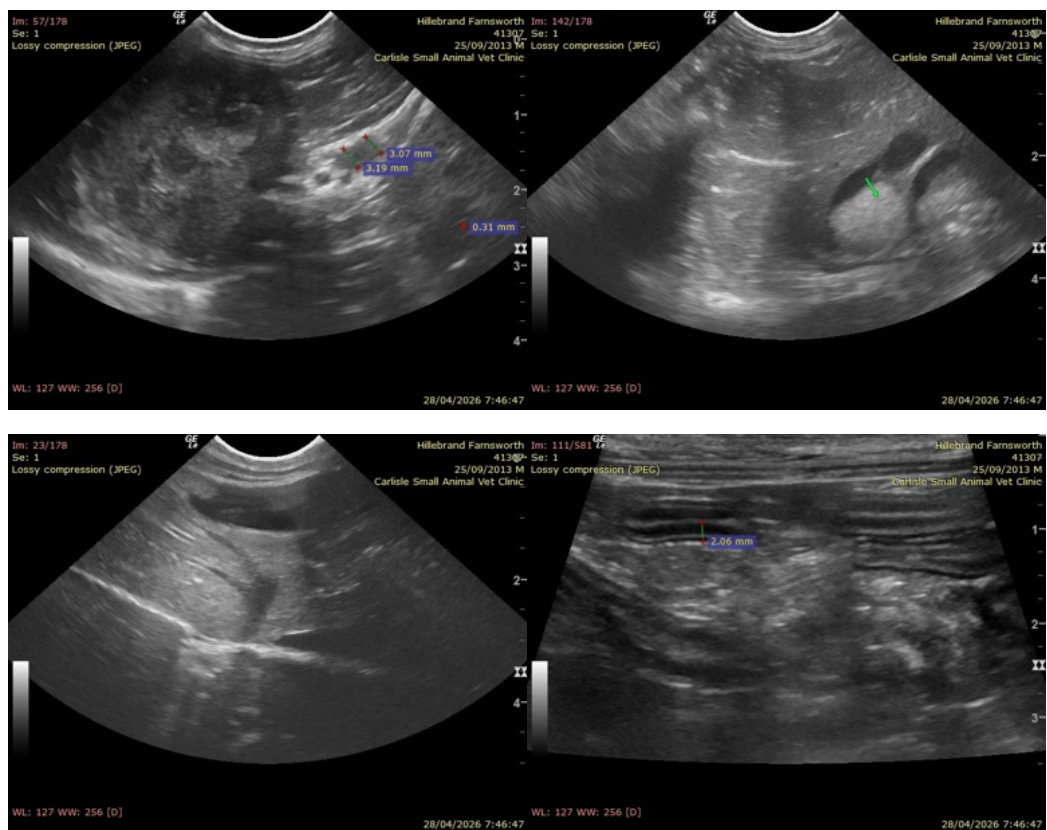
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## Recommendations

- Serum cobalamin and folate concentrations are recommended, as functional small intestinal disease may be present even with mild imaging changes, and supplementation may be indicated.
- A strict dietary trial (novel or hydrolyzed protein) is reasonable as an initial, minimally invasive step if not already performed.
- If clinical signs persist or response to empirical therapy is incomplete, intestinal biopsy (endoscopic or full-thickness) should be considered, as histopathology is required to differentiate IBD from low-grade lymphoma.
- Empirical therapy (probiotics, cobalamin supplementation if indicated) may be continued, but should not delay definitive diagnostics if weight loss persists.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.





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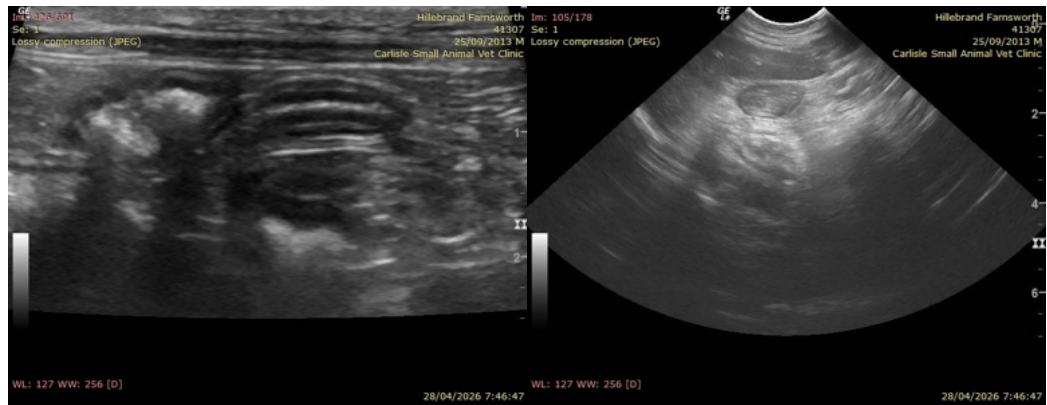
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

[info@SonoPath.com](mailto:info@SonoPath.com)