



## PATIENT

Bruni Bohannon

## SPECIES

Feline

## BREED

Domestic Shorthair

## SEX

Spayed female

## AGE

3 years

## WEIGHT

10.6 lbs

## INTERPRETED BY

Dr. Alicia Angosto  
Guerrero

## IMAGING PERFORMED BY

Ashley McCaughan,  
DVM

## HOSPITAL NAME

Marina Village  
Veterinary &  
Integrative Care

## REFERRING VET

Dr. McCaughan

## INVOICE

71760

## DATE

2/19/26

## PRESENTING CLINICAL SIGNS

Weight loss in last few weeks and chronic vomiting for months  
FIV + status

Complete labwork (CBC/Chem/T4/UA) performed at ER - nsf

Abnormal PE/Chem/CBC/UA Results: PE - unremarkable, no organomegaly on palpation; severe gingivitis noted upper molars 109, 209 arcades ALT - 25 (low), cholesterol - 82 (low); UA - Alkaline urine with struvite crystals ventral abdominal overgrooming/alopecia

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The bladder lumen is normally distended, and the wall of the urinary bladder appears thin and smooth. The urine is turbid with suspended echoes. Normal appearance of the bladder neck and proximal urethra. There are no calculi and no ultrasonographic evidence of inflammatory or neoplastic changes.

The left kidney is normal in shape and size: 4.00×2.62 cm, and the thickness of the cortex is 0.45 cm in the sagittal plane. Renal length is within normal limits for an adult cat (approximately 3.0–4.5 cm). The right kidney is normal in shape and size: 4.22×2.40 cm, and the thickness of the cortex is 0.41 cm in the sagittal plane. Renal length is within normal limits. Both kidneys: the renal cortex is increased in echogenicity, resulting in increased corticomedullary distinction. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis.

### *Adrenal Glands*

The adrenal glands are not visualized.

### *Spleen*

Splenic thickness is 0.64 cm (within normal limits; ≤1.2–1.3 cm). The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal 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 appears uniform and isoechoic compared to the falciform fat, with a normal echotexture. No focal hepatic lesions or hepatic lymphadenopathy are observed.

The gallbladder lumen is normally distended. The wall is thin and the contents are primarily anechoic. No dilation of the cystic duct or common bile duct is observed.



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## Gastrointestinal

The stomach is empty and folded, with mural thickness measuring 1.36 mm and preserved wall layering (within normal limits). The pylorus is not well visualized.

Duodenum: 1.20 mm (within normal limits;  $\leq 2.7$  mm). Jejunum: 2.76 mm total thickness. Mucosa: 1.06 mm. Submucosa: 0.57 mm. Muscularis propria: 1.10 mm. The muscularis-to-mucosa ratio is approximately 1.04, which is markedly increased (normal  $< 0.5$ ).

Ileum: 2.43 mm total thickness (within normal limits;  $\leq 2.7$  mm). Mucosa: 0.65 mm. Submucosa: 0.62 mm. Muscularis propria: 1.17 mm. The muscularis-to-mucosa ratio is approximately 1.80. In some ileal segments, the muscularis measures up to 1.62 mm.

The ileocecal junction measures 4.68 mm, with muscularis thickness of 1.93 mm, representing muscularis-predominant thickening. Wall layering is preserved throughout, without loss of stratification.

Colon: 1.18–1.46 mm, wall layering preserved, with formed feces in the descending segment.

## Pancreas

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

## Peritoneal Cavity

No abdominal effusion or peritonitis is observed. Cranial mesenteric lymph nodes measure 3.93 mm in thickness (within normal limits; generally  $\leq 5$  mm in cats). Ileocecal lymph nodes measure 2.41–2.56 mm, mildly hypoechoic with normal shape. The iliac trifurcation is normal.

## ULTRASONOGRAPHIC FINDINGS

### PRIMARY FINDINGS

- Marked muscularis-predominant thickening of jejunum, ileum, and ileocecal junction.
- Muscularis-to-mucosa ratios  $> 1.0$  (normal  $< 0.5$ ).
- Preserved wall layering despite significant muscularis expansion.

### SECONDARY FINDINGS

- Mildly increased renal cortical echogenicity (incidental, clinical relevance uncertain).

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most significant ultrasonographic finding is marked muscularis-predominant thickening of the jejunum, ileum, and ileocecal junction, with muscularis-to-mucosa ratios exceeding 1.0 and reaching approximately 1.8 in the ileum. Normal feline muscularis-to-mucosa ratios are  $< 0.5$ . This degree of muscularis expansion is clearly abnormal. The ileocecal junction measures 4.68 mm in total thickness, with muscularis thickness representing approximately 41% of the total wall thickness.



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This pattern — muscularis-predominant thickening with preserved stratification — is classically associated with either chronic inflammatory enteropathy or small cell lymphoma in cats. Ultrasound alone cannot reliably differentiate these entities.

The changes are diffuse rather than focal and involve all small intestinal segments, which increases suspicion for infiltrative disease.

Mesenteric lymph nodes are within normal size limits and maintain normal morphology, which does not exclude lymphoma, particularly small cell lymphoma. In an FIV-positive patient, the risk of lymphoproliferative disease is increased. Although this cat is relatively young FIV status modifies the baseline risk profile.

There is no ultrasonographic evidence of obstructive disease, effusion, mass lesion, or advanced transmural neoplasia.

### Recommendations

- Although endoscopic biopsy is a reasonable initial diagnostic approach, it should be recognized that standard upper gastrointestinal endoscopy in cats is typically limited to sampling the gastric and proximal duodenal mucosa. The most pronounced ultrasonographic changes in this patient involve the jejunum and ileum with muscularis-predominant thickening, regions that may not be accessible endoscopically. In addition, endoscopic biopsies are generally limited to mucosal (and occasionally superficial submucosal) layers, whereas the ultrasonographic abnormalities in this case predominantly affect the muscularis propria. Therefore, full-thickness surgical biopsy may provide a more representative assessment if definitive diagnosis is required.
- Histopathology ± immunohistochemistry (CD3/CD79a) and PCR for antigen receptor rearrangement (PARR) may be necessary to differentiate inflammatory enteropathy from small cell lymphoma.
- Serum cobalamin concentration should be measured given ileal involvement.
- If biopsy is declined, therapeutic decisions should be made at the discretion of the attending clinician; empirical corticosteroid therapy may be considered, recognizing it may interfere with later histologic interpretation.
- Given FIV-positive status, careful long-term monitoring is advised regardless of diagnosis.



