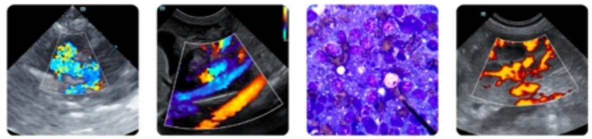


PATIENT

Nugget Hulme

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

3 years

WEIGHT

12.08 lbs

INTERPRETED BY

Dr. Alicia Angosto Guerrero

IMAGING PERFORMED BY

Pamela Bay

HOSPITAL NAME

For Cats Only VC

REFERRING VET

Dr. Bay

INVOICE

69622

DATE

12/29/25

PRESENTING CLINICAL SIGNS

History: Vomiting daily and elevated liver values
Phos 3.5 (L), TP 9 (H), glob 5.1 (H), ALP 196 (H), GGT 2 (H), chol 278 (H)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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

The left kidney is normal in shape and size, measuring 3.96×2.14 cm, with a cortical thickness of 0.40 cm in the sagittal plane. The right kidney is normal in shape and size, measuring 4.09×2.40 cm, with a cortical thickness of 0.45 cm in the sagittal plane. In both kidneys, the renal cortex is slightly increased in echogenicity, resulting in increased corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

Adrenal Glands

Both adrenal glands show normal shape and echogenicity. The left adrenal gland measures 0.26 cm at the cranial pole and 0.28 cm at the caudal pole. The right adrenal gland measures 0.22 cm at the cranial pole and 0.24 cm at the caudal pole.

Spleen

Splenic thickness is 0.90 cm. The parenchyma demonstrates normal echogenicity and a fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

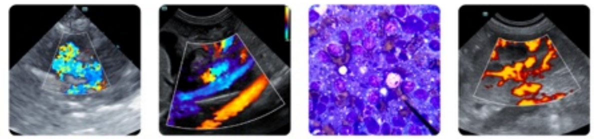
Liver

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

The gallbladder lumen is normally distended. The gallbladder wall measures approximately 1.01–1.31 mm, and the contents are primarily anechoic. No evident dilation of the cystic duct or common bile duct is observed.

Gastrointestinal

The stomach is empty and folded, with a mural thickness of approximately 1.84 mm and preserved wall layering. The pylorus measures 3.50 mm.



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The duodenum measures 1.98 mm. The jejunum measures 2.12 mm (mucosa: 0.79 mm; submucosa: 0.77 mm; muscularis propria: 0.40 mm). The ileum measures 1.24–1.40 mm (mucosa: 0.70 mm; submucosa: 0.51 mm; muscularis propria: 0.36 mm), with preserved wall layering. The ileocecal junction measures 1.89 mm and shows normal wall layering. Some segments of the small intestine contain mild gas. No signs of obstruction, ileus, or foreign material are identified.

The colon wall measures approximately 1.07 mm, with formed feces present in the descending segment.

Pancreas

The pancreas itself could not be clearly visualized; however, the pancreatic regions that were assessed show no evidence of active inflammation.

Peritoneal Cavity

No abdominal effusion or peritonitis is observed. Cranial mesenteric lymph nodes measure approximately 0.35 mm in thickness and have normal shape and echogenicity. Ileocecal lymph nodes are not visualized, and the surrounding regions appear unremarkable. The iliac trifurcation is normal.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS

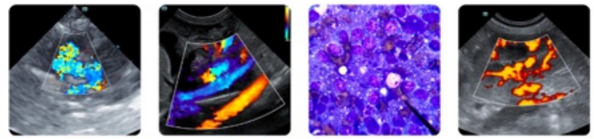
- Mild gallbladder wall thickening (up to 1.31 mm) without biliary duct dilation.

SECONDARY FINDINGS

- Turbid urine with abundant suspended echoes, without evidence of urolithiasis or cystitis.
- Mild bilateral increased renal cortical echogenicity.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Despite the absence of overt ultrasonographic hepatic lesions, the laboratory profile—characterized by elevated ALP, GGT, and cholesterol, along with hyperproteinemia and hyperglobulinemia—is most consistent with a functional or biochemical cholestatic process, rather than mechanical biliary obstruction. In cats, this pattern may be associated with early inflammatory hepatobiliary disease, with neutrophilic cholangitis considered a leading differential. Published studies have shown that lymphocytic cholangitis is more commonly associated with ultrasonographic abnormalities of the liver, biliary tree, gastrointestinal tract, or regional lymph nodes, whereas neutrophilic cholangitis may present with normal or only minimally altered imaging findings, particularly in the early stages, and may occur in the absence of lymphadenopathy. While lymphocytic cholangitis remains a differential diagnosis, it typically represents a more chronic, immune-mediated process. Definitive differentiation between these entities requires histopathologic confirmation via liver biopsy, as cytology alone is insufficient for a definitive diagnosis.



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The gallbladder is normally distended, with a mildly thickened wall (up to 1.31 mm) and anechoic contents, without evidence of biliary duct dilation. These findings do not support extrahepatic biliary obstruction but may be compatible with low-grade hepatobiliary inflammation or functional cholestasis.

The kidneys show mild, bilateral increased cortical echogenicity. Given the presence of hypercholesterolemia and hepatobiliary disease, these changes may be consistent with metabolic or lipid-related parenchymal alterations; however, they may also be incidental or reflect subclinical renal disease.

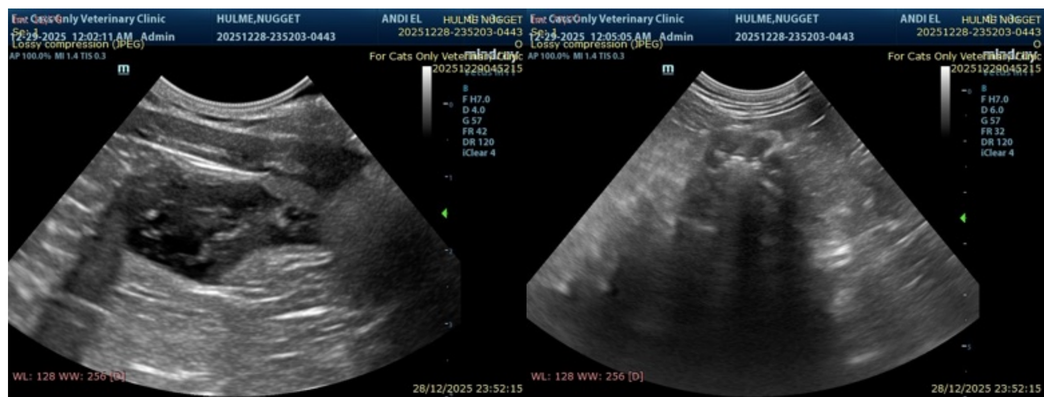
The gastrointestinal tract appears largely within normal limits, with preserved wall layering throughout and no evidence of obstruction or infiltrative disease. Mild gas within some small intestinal segments is considered incidental. The absence of significant gastrointestinal structural disease suggests that the vomiting may be secondary to hepatobiliary or systemic inflammatory processes, rather than primary gastrointestinal pathology.

The presence of turbid urine with abundant suspended echoes, in the absence of uroliths or bladder wall abnormalities, is most consistent with concentrated urine and/or inactive sediment, and is not considered clinically significant at this time.

Overall, the findings support a diagnosis of suspected inflammatory hepatobiliary disease or functional cholestasis.

Recommendations

- Initiate a targeted medical trial including antiemetic therapy, hepatoprotective support (SAMe ± silybin), ursodeoxycholic acid (in the absence of biliary obstruction), and empiric hepatobiliary-penetrating antibiotic therapy for suspected neutrophilic cholangitis.
- Reassess clinical signs and repeat hepatobiliary biochemistry to evaluate response to therapy.
- If there is inadequate clinical or biochemical improvement, consider invasive diagnostics, with liver biopsy required for definitive diagnosis of lymphocytic or chronic inflammatory hepatobiliary disease.
- Although abdominal ultrasonography does not demonstrate overt pancreatic or gastrointestinal abnormalities, if there is a clinical suspicion for triaditis, adjunctive gastrointestinal testing (including feline-specific pancreatic lipase) may be considered as a complementary tool.



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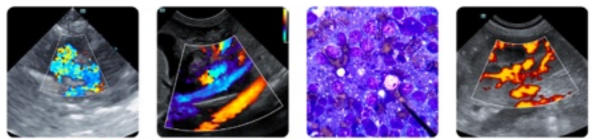

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Educational Teleconsultation Services™

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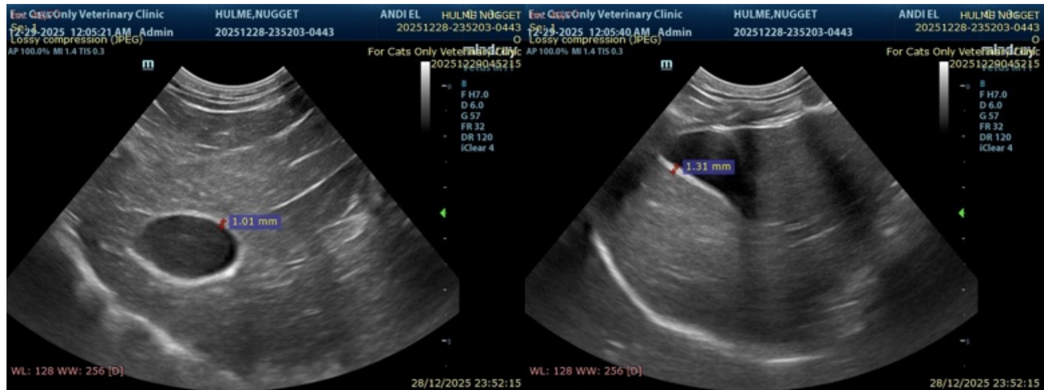

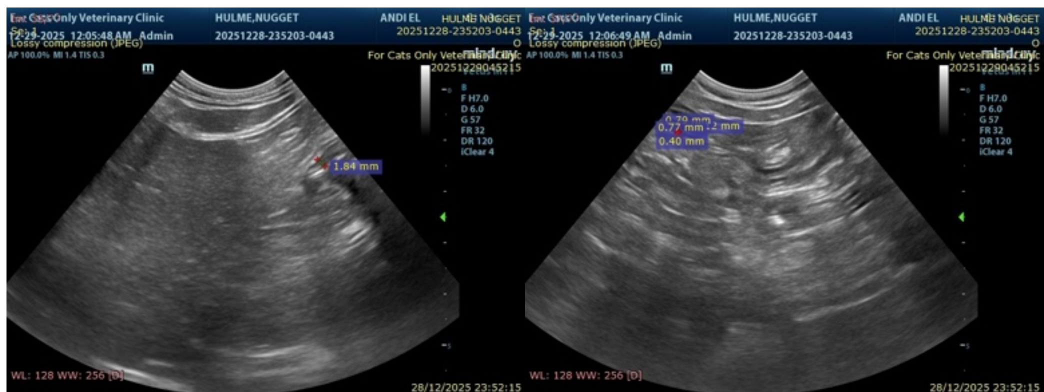

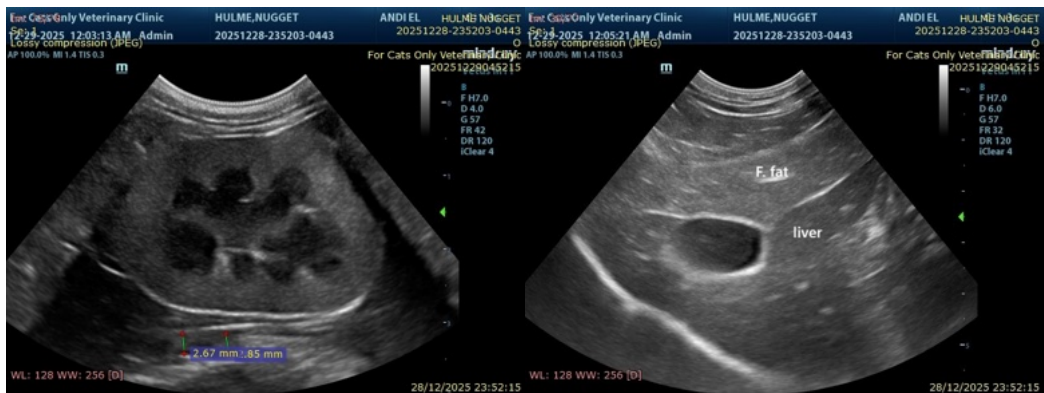

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

MV Esp Ultrasound in Domestic and Wild Animals

info@SonoPath.com