



PATIENT

Eddie Eckensweiler

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

13 Years

WEIGHT

4.02 kg

INTERPRETED BY

Alicia Angosto
Guerrero, DMV,
PgDip, MSc.

IMAGING PERFORMED BY

Dr. Cassie Jackson

HOSPITAL NAME

Huntsville Animal
Hospital

REFERRING VET

Dr. Cassie Jackson

INVOICE

13480

DATE

01/30/26

PRESENTING CLINICAL SIGNS

- History of anemia of unknown origin responsive originally to prednisolone, now on prednisolone and cyclosporine which he has responded to. Patient is feline leukemia virus positive. Historical food intolerance and allergies responsive to Z/D and Hypo HP diet which he is still on. Grade 3/6 heart murmur present L side. Recently has started vomiting intermittently and recent BW revealed elevated bilirubin and bilirubin crystals in urine. Recent weight loss. Otherwise doing well clinically at home. Sedated with gabapentin, low dose dexmedetomidine, butorphanol and alfaxalone

Abnormal PE/Chem/CBC/UA Results: - CBC parameters WNL - historical anemia responsive to prednisolone and cyclosporine - currently receiving both medications - M1 ALP elevation - Bilirubin 18.8 (0-5.2) - UA 6-20/HPF Bilirubin crystals, stick 1+ bilirubin, SG 1.028, UPC 0.4

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is markedly distended. The bladder wall is thin and smooth. Urine is anechoic. The bladder neck and proximal urethra appear normal. No uroliths or ultrasonographic evidence of inflammatory or neoplastic disease are identified.

The left kidney is normal in shape and size, measuring 3.70×2.10 cm, with a cortical thickness of 0.36 cm in the sagittal plane. The renal cortex is isoechoic relative to the liver parenchyma. The corticomedullary ratio and corticomedullary distinction are preserved. No pyelectasia, nephrolithiasis, or hydronephrosis is observed. Color Doppler demonstrates a normal vascular pattern.

The right kidney is normal in shape and size, measuring 3.98×2.24 cm, with a cortical thickness of 0.52 cm in the sagittal plane. The renal cortex is isoechoic relative to the liver parenchyma. The corticomedullary ratio and corticomedullary distinction are preserved. No pyelectasia, nephrolithiasis, or hydronephrosis is observed. Color Doppler demonstrates a normal vascular pattern.

Adrenal Glands

Both adrenal glands have normal shape and echogenicity.

The left adrenal gland measures 0.23 cm at the cranial pole and 0.21 cm at the caudal pole. The right adrenal gland measures 0.20 cm at both the cranial and caudal poles.

Spleen

Splenic thickness is 0.55 cm. The splenic parenchyma demonstrates normal echogenicity and a fine, homogeneous echotexture. No focal lesions are identified. The splenic capsule is smooth and regular. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size, with sharp margins and a regular contour. The hepatic parenchyma is uniform and slightly hyperechoic relative to the falciform fat, with a very fine echotexture. No hepatic lymphadenopathy is observed.

The gallbladder is normally distended. The wall is thin. The lumen contains a moderate amount of biliary sludge. A small number of focal, non-shadowing echogenic mineral deposits are observed within



PATIENT

Eddie Eckensweiler

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

13 Years

WEIGHT

4.02 kg

INTERPRETED BY

Alicia Angosto
Guerrero, DMV,
PgDip, MSc.

IMAGING PERFORMED BY

Dr. Cassie Jackson

HOSPITAL NAME

Huntsville Animal
Hospital

REFERRING VET

Dr. Cassie Jackson

INVOICE

13480

DATE

01/30/26

a limited region of the intrahepatic bile ducts. No dilation of the cystic duct or common bile duct is identified.

Gastrointestinal

The stomach is empty and folded, with a moderate amount of fluid present between the gastric body and pylorus. Gastric wall thickness is 1.36 mm, with preserved wall layering. The pyloric wall measures 2.50 mm.

The duodenum measures 2.07 mm.

The jejunum measures 2.13 mm, with mural layers as follows:

- Mucosa: 1.45 mm
- Submucosa: 0.49 mm
- Muscularis propria: 0.29 mm

The ileum measures 2.07 mm, with mural layers as follows:

- Mucosa: 0.50 mm
- Submucosa: 0.78 mm
- Muscularis propria: 0.32 mm

Wall layering is preserved throughout. The ileocecal junction measures 2.63 mm, with a muscularis layer measuring 0.97 mm. No ultrasonographic evidence of gastrointestinal inflammation, ileus, or foreign material is identified.

The colon wall measures 0.72 mm in the transverse colon, containing formed feces with distal acoustic shadowing, and 0.50 mm in the descending colon, with a small amount of formed fecal material.

Pancreas

The evaluated portions of the pancreas show no ultrasonographic evidence of overt inflammation.

Free Abdomen

No abdominal effusion or peritonitis is observed. Cranial mesenteric and ileocecal lymph nodes are not visualized; surrounding regions appear unremarkable. The iliac trifurcation appears normal.

PRIMARY FINDINGS

- Moderate biliary sludge.
- Small non-shadowing mineralized deposits within intrahepatic bile ducts.
- Mild diffuse hepatic hyperechogenicity.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most relevant abnormalities are confined to the hepatobiliary system, characterized by moderate biliary sludge and small non-shadowing mineralized deposits within the intrahepatic bile ducts, without dilation of the cystic duct or common bile duct. In the context of marked hyperbilirubinemia,



PATIENT

Eddie Eckensweiler

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

13 Years

WEIGHT

4.02 kg

INTERPRETED BY

Alicia Angosto
Guerrero, DMV,
PgDip, MSc.

IMAGING PERFORMED BY

Dr. Cassie Jackson

HOSPITAL NAME

Huntsville Animal
Hospital

REFERRING VET

Dr. Cassie Jackson

INVOICE

13480

DATE

01/30/26

bilirubinuria, and bilirubin crystalluria, these findings support a diagnosis of cholestasis, most consistent with an intrahepatic process rather than extrahepatic biliary obstruction.

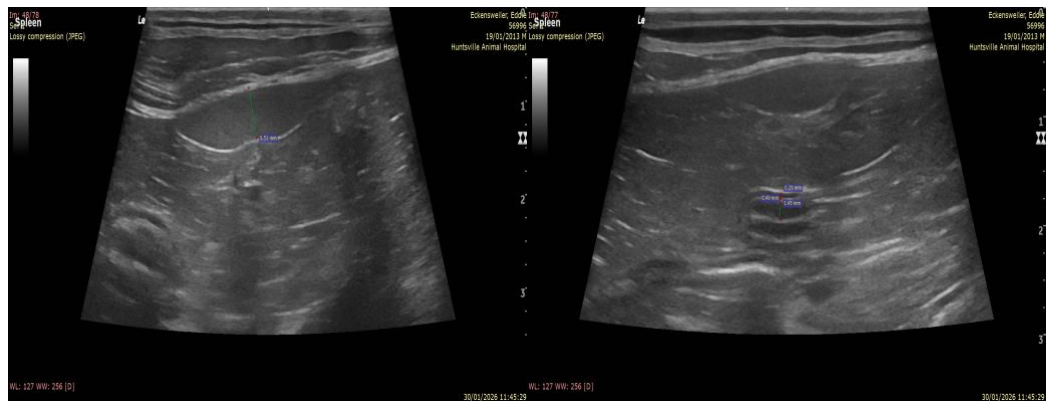
The liver parenchyma is mildly hyperechoic with preserved architecture, a pattern that may be seen with steroid-associated hepatopathy, lipidosis, or metabolic cholestasis. Given the patient's chronic immunosuppressive therapy and FeLV-positive status, hepatocellular dysfunction, inflammatory cholangitis, or mixed hepatobiliary disease cannot be excluded, despite the absence of overt ultrasonographic changes. It is acknowledged that early or functional hepatobiliary disease may not produce marked structural abnormalities detectable by ultrasound.

Ultrasonographically, there is no evidence of structurally significant gastrointestinal disease or associated abdominal lymphadenopathy to account for the patient's clinical signs.

Overall, the imaging findings align best with biochemical and functional cholestasis, with ultrasound demonstrating secondary biliary changes rather than a mechanical obstructive process.

Recommendations

- Correlate ultrasonographic findings with complete hepatobiliary laboratory evaluation, including ALT, AST, ALP, GGT, bile acids, and coagulation profile, to further characterize the nature and severity of cholestasis.
- Given the combination of hyperbilirubinemia, bilirubinuria/crystalluria, and intrahepatic biliary mineralization, further investigation of hepatobiliary disease is recommended, with consideration of infectious, inflammatory, metabolic, and drug-associated causes, particularly in the context of FeLV infection and chronic immunosuppression.
- If hyperbilirubinemia persists or progresses, consider advanced diagnostics, such as ultrasound-guided liver sampling (cytology and/or histopathology), with appropriate risk assessment.
- Continue clinical monitoring for progression of gastrointestinal signs; further gastrointestinal diagnostics should be guided by clinical evolution rather than current ultrasonographic findings.





PATIENT

Eddie Eckensweiler

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

13 Years

WEIGHT

4.02 kg

INTERPRETED BY

Alicia Angosto
Guerrero, DMV,
PgDip, MSc.

IMAGING PERFORMED BY

Dr. Cassie Jackson

HOSPITAL NAME

Huntsville Animal
Hospital

REFERRING VET

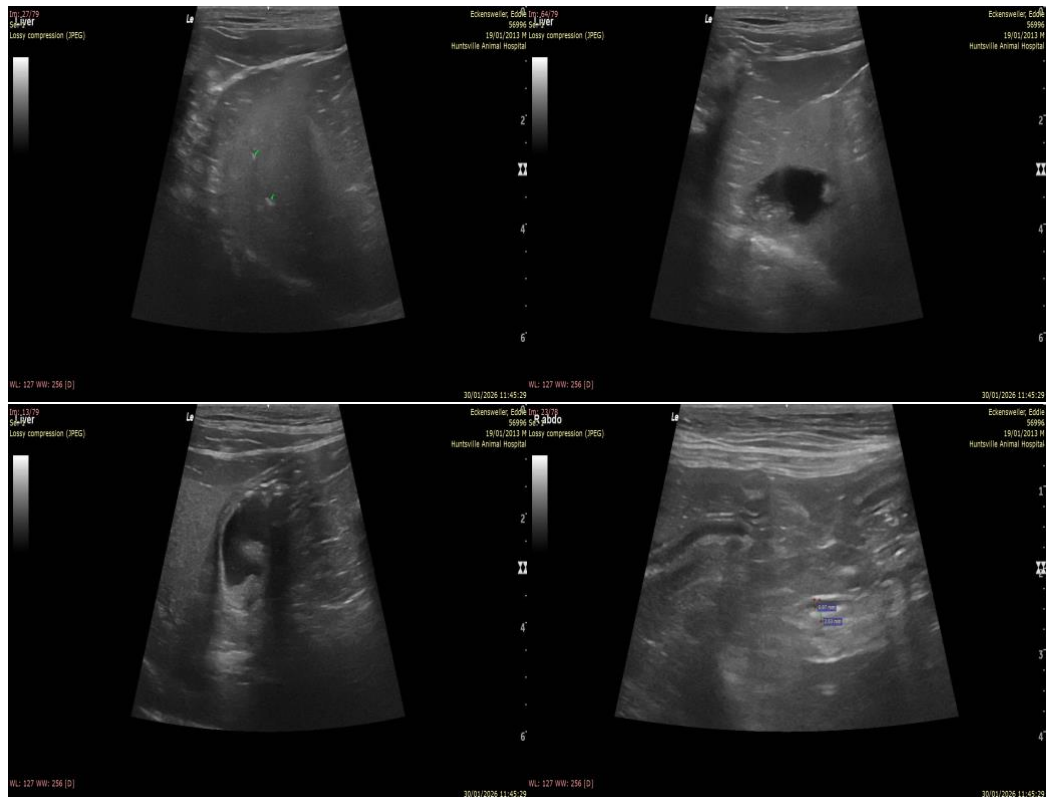
Dr. Cassie Jackson

INVOICE

13480

DATE

01/30/26



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