

**PATIENT**Cabby for the Love of
Cats Rescue**SPECIES**

Feline

BREED

Domestic Shorthair

SEX

Spayed Female

AGE

4 years

WEIGHT

5.6 lbs

INTERPRETED BYKathleen Sennello
DVM, MS, Diplomate
ACVIM (Small Animal
Internal Medicine)**IMAGING
PERFORMED BY**

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VETWixom Family Pet
Practice**INVOICE**

96689

DATE

6/10/20

PRESENTING CLINICAL SIGNS

History: Presented for recent decreased appetite and has progressed to not eating last 2 days. Very thin. Vomiting bile. Lethargic.

Abnormal PE/Chem/CBC/UA Results: See attached BW, UA showed bilirubin crystals, USG 1.040, TNTC cocci (cysto sample), 0-1 WBC/hpf.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (3.49 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 (3.5 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 0.34 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 right adrenal gland is normal in size measuring 0.35 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

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 large in size with rounded margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The proximal cystic duct appears dilated and contains luminal mucoid debris. In this area if

**PATIENT**

Cabby for the Love of
Cats Rescue

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Spayed Female

AGE

4 years

WEIGHT

5.6 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

Wixom Family Pet
Practice

INVOICE

96689

DATE

01/10/20

measures at 0.68 cm. As it is followed more distally it is somewhat tortuous, but appears to narrow and appear more anechoic measuring approximately 0.34 cm. No point of obstruction is visualized.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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.

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. The duodenum measured as normal (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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 no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

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.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS**PRIMARY FINDINGS:**

- Large, hyperechoic, rounded liver. Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy.
- Dilated tortuous bile duct with mucoid debris. Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).

**PATIENT**Cabby for the Love of
Cats Rescue**SPECIES**

Feline

BREED

Domestic Shorthair

SEX

Spayed Female

AGE

4 years

WEIGHT

5.6 lbs

INTERPRETED BYKathleen Sennello
DVM, MS, Diplomate
ACVIM (Small Animal
Internal Medicine)**IMAGING
PERFORMED BY**

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VETWixom Family Pet
Practice**INVOICE**

96689

DATE

03/12/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

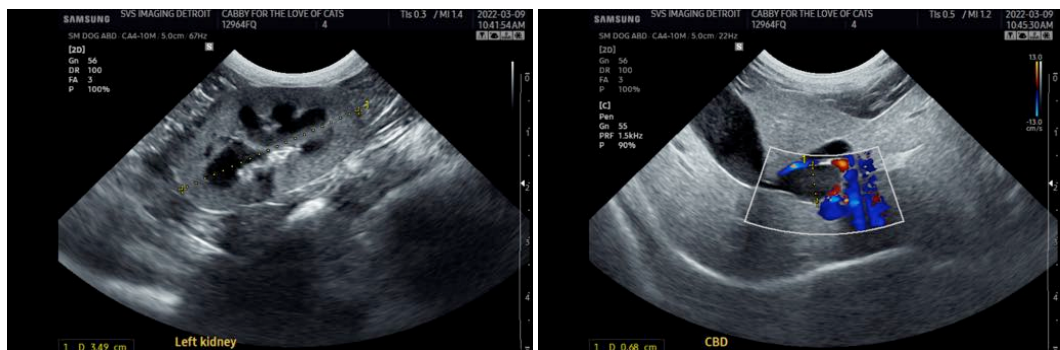
No focal lesions are observed in the liver. It does appear diffusely enlarged and hyperechoic. The gallbladder itself appears relatively normal, but the bile duct is somewhat dilated and tortuous. A point of obstruction is not visualized, so this could be an incidental finding or consistent with an early biliary obstruction/biliary tract disease. I recommend to continue monitoring the bile duct with ultrasound. The appearance of these lesions trends towards a primary hepatopathy rather than primary biliary disease.

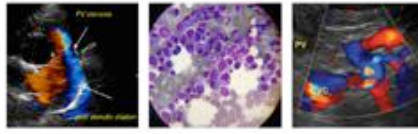
Potential systemic causes for cats with elevated liver enzymes include hyperthyroidism, diabetes, sepsis, toxicity (meds, etc.), FIP, etc. If these conditions are unlikely then a hepatic/post hepatic issue (infectious, inflammatory, lipidosis, neoplasia) is suspected.

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc.
- Recommend thyroid evaluation (if not already done)
- If not already done, consider pre and post prandial bile acids to evaluate liver function (can skip if bilirubin is elevated)
- Consider fine needle aspirate if round cell neoplasia is on your differential list (25 g needle, normal coags)
- If cytology is not helpful and there is no response to therapy, consider liver biopsy with samples obtained for histopathology and culture.
- Recheck gall bladder and bile duct in 48-72 hours to look for progressive distension.
- If triaditis is suspected consider therapy for cholangiohepatitis (fluids, antibiotics +/- steroids), testing for pancreatitis and evaluation for IBD (GI panel to Texas A&M GI lab)
- Consider a feeding tube if patient is not eating for a prolonged period of time

Additionally this cat is anemic. I recommend pathologist review of blood smear to try and determine if this is most consistent with an anemia of chronic disease. If there is evidence of regeneration, blood parasites, etc. Additional diagnostics may be recommended depending on these results.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





PATIENT

Cabby for the Love of
Cats Rescue

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Spayed Female

AGE

4 years

WEIGHT

5.6 lbs

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging Michigan

REFERRING VET

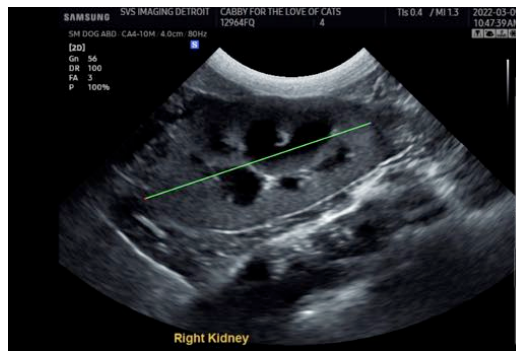
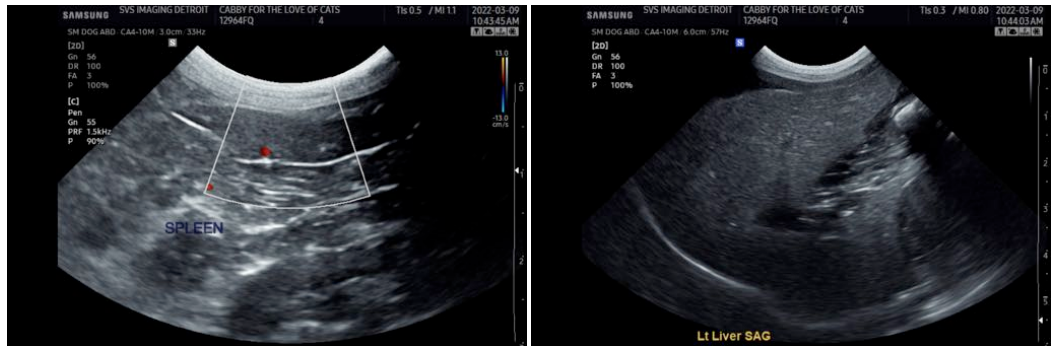
Wixom Family Pet
Practice

INVOICE

96689

DATE

3/10/2022



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)

kathleen.sennello@sonopath.com