



**PATIENT**

Emma Helmlinger

**SPECIES**

Feline

**BREED**

Siamese

**SEX**

Female

**AGE**

5 Years

**WEIGHT**

7.4 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Heather

**HOSPITAL NAME**

ACC Flanders

**REFERRING VET**

Dr. Casiulli

**INVOICE**

17903

**DATE**

11/7/22

**PRESENTING CLINICAL SIGNS**

History: not eating, vomiting bile, was urinating out of box medications: gabapentin, pepcid, ursodial, miritaz, denamarin

Abnormal PE/Chem/CBC/UA Results: 11/5/22 - AST(SGOT) - 687 (hi), ALT(SGPT) - 912 (HI), total bili, 1.1 (hi), CPK - 1791(hi) , HCT 50 (hi), neu - 77(hi) , abs. lymph 737(lo) , lymph - 11(lo)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal is size (3.27 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Right kidney is normal is size (3.49 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

The area of the left adrenal gland is examined without evident pathology.

The area of the right adrenal gland is examined without evident pathology.

**Spleen**

Spleen is subjectively large in size with a mildly swollen but smooth capsule. Parenchyma is normal and homogenous in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. No focal nodules or masses are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**Gastrointestinal**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is mildly distended with



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echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

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***Pancreas***

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

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***Free Abdomen***

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

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**ULTRASONOGRAPHIC FINDINGS**

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- Hypoechoic hepatomegaly-This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
- Gallbladder debris – Cholecytic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness, however, it can also be associated with hepatobiliary disease in cats and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- Hypersplenism – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis (leave amyloidosis out if canine) as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Given this patients CPK and AST values, a myopathy contributing to the increased ALT is as, if not more, likely than a primary hepatopathy and therefore, comprehensive infectious disease work up, including toxoplasma is recommended.

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A fine needle aspirate of the liver and/or spleen could be considered if patients coagulation status is appropriate.

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In the meantime, recommendations include supportive/symptomatic medical management of clinical signs in addition to hepatic nutraceuticals, as well as broad spectrum antibiotics. Nutritional support is critical to prevent/manage concurrent hepatic lipidosis. So, appetite stimulants and/or if indicated, feeding tube placement may be necessary while working up a diagnosis.

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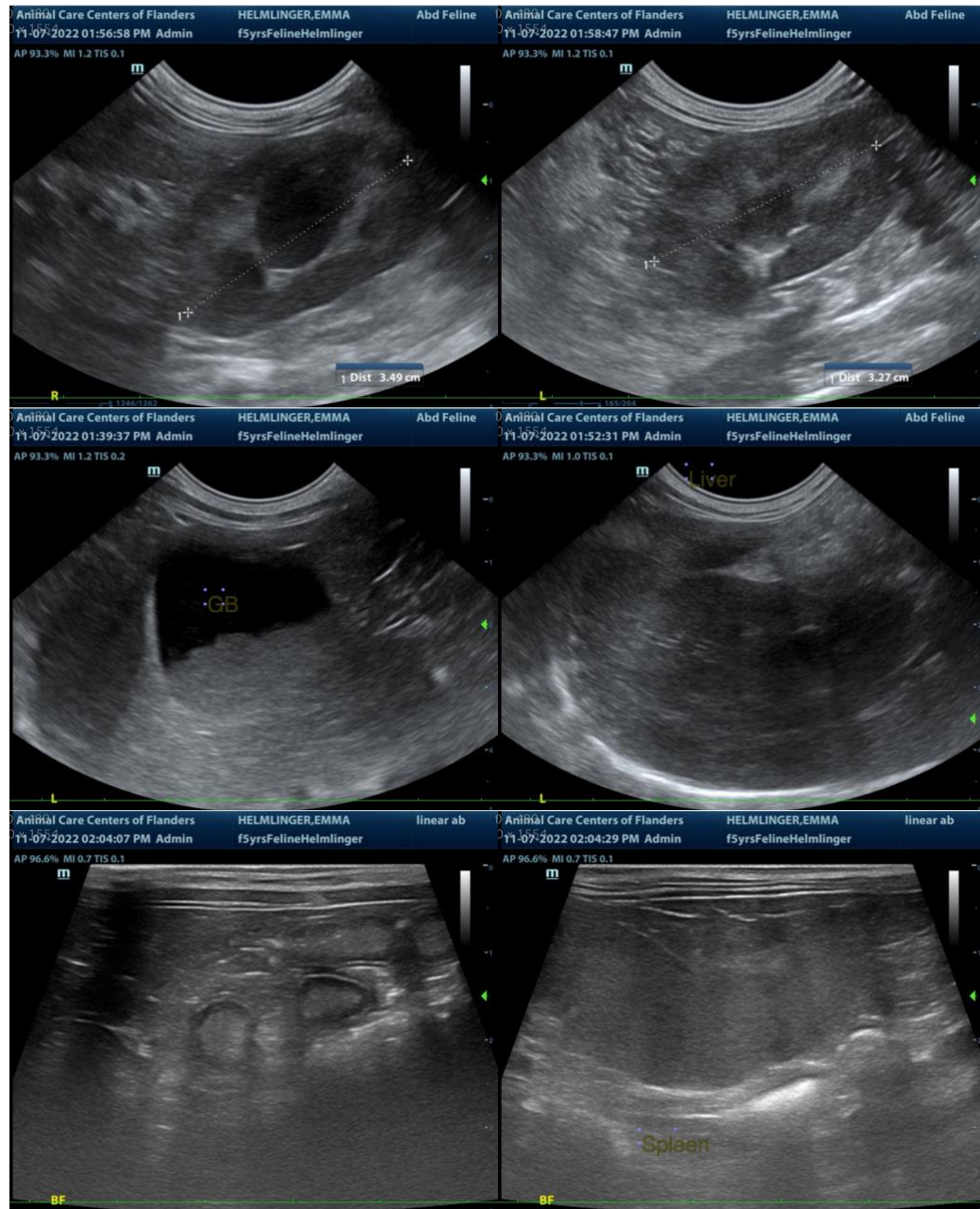
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM DACVIM**

Beth.Johnson@SonoPath.com



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