

**PATIENT**

Mia Toepfer

**PRESENTING CLINICAL SIGNS**

Recheck for bloodwork for liver enzymes and not eating.

**SPECIES**

Feline

Abnormal PE/Chem/CBC/UA Results: Dx: Bloodwork- see results, ALP more elevated, also increase ALT at this point, BUN, Creat- decreased Disc: called owner, noted findings, correlates with liver failure AND all values have skyrocketed in just 13 days, rec referral for emergency hospitalization with supportive care and ultrasound (to potentially determine underlying cause). jcr \*\*Please see attached labs

**BREED**

Siamese X

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System****SEX**

Spayed Female

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.

**AGE**

12 Years 4 Months

The left kidney has a normal shape and size (3.16 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

10 Pounds

The right kidney has a normal shape and size (3.15 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**
 Kathleen Sennello DVM,  
 MS, Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)
**Adrenal Glands**

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

**IMAGING PERFORMED BY**

Amy Mayhew, LVT

**Spleen**

The spleen is subjectively normal in size (0.73 cm in width at the level of the hilus), 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.

**HOSPITAL NAME**

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**Liver**

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

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The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

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**Gastrointestinal**

The stomach contains moderate fluid/ingesta. 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.

**DATE**

10/5/22

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**SPECIES**

Feline

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Siamese X

**SEX**

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Medicine)**IMAGING  
PERFORMED BY**

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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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with mild pancreatitis.

***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**

- Hypoechoic pancreas with hyperechoic surrounding mesentery – The pancreatic changes are most consistent with mild pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.
- Large, mildly heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Moderate dilation of the stomach with fluid/ingesta – Correlate with feeding history. If the patient was adequately fasted, consider delayed gastric emptying or a pyloric outflow tract obstruction (none observed).

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The pancreas is hypoechoic and prominent with some surrounding hyperechoic mesentery. Findings could be consistent with pancreatitis. Correlate with an fPLI level to further evaluate.

The changes in the liver are very subtle. There are no focal lesions and the biliary tract appears normal. Findings are most consistent with a primary hepatopathy. Consider the following recommendations:

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc..
- Recommend thyroid evaluation (if not already done)
- 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.

**IMAGING PERFORMED BY**

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- If triaditis is suspected (chronic GI signs, concurrent pancreatic changes on US) consider therapy for cholangiohepatitis (fluids, ursodiol, probiotics, +/- steroids/antibiotics), testing for pancreatitis and evaluation for IBD (GI panel to Texas A&M GI lab)

**SPECIES**

Feline

- Consider a feeding tube if patient is not eating for a prolonged period of time

**BREED**

Siamese X

In an ideal situation, sampling should be done on this patient to look for evidence of round cell neoplasia, inflammation, lipidosis, etc. Additionally, placement of a feeding tube would be very helpful with treatment. If these steps are not possible, then consider Ursodiol therapy and antibiotics with forced feedings and anti-nausea medications (possibly Cerenia and Metoclopramide). If there is no response to this, then consider an anti-inflammatory dose of steroids (0.5 mg/kg per day Prednisolone), as cholangiohepatitis, Triaditis, etc. could be present. Additionally recommend treatment for pancreatitis, and 3-view thoracic radiographs.

**SEX**

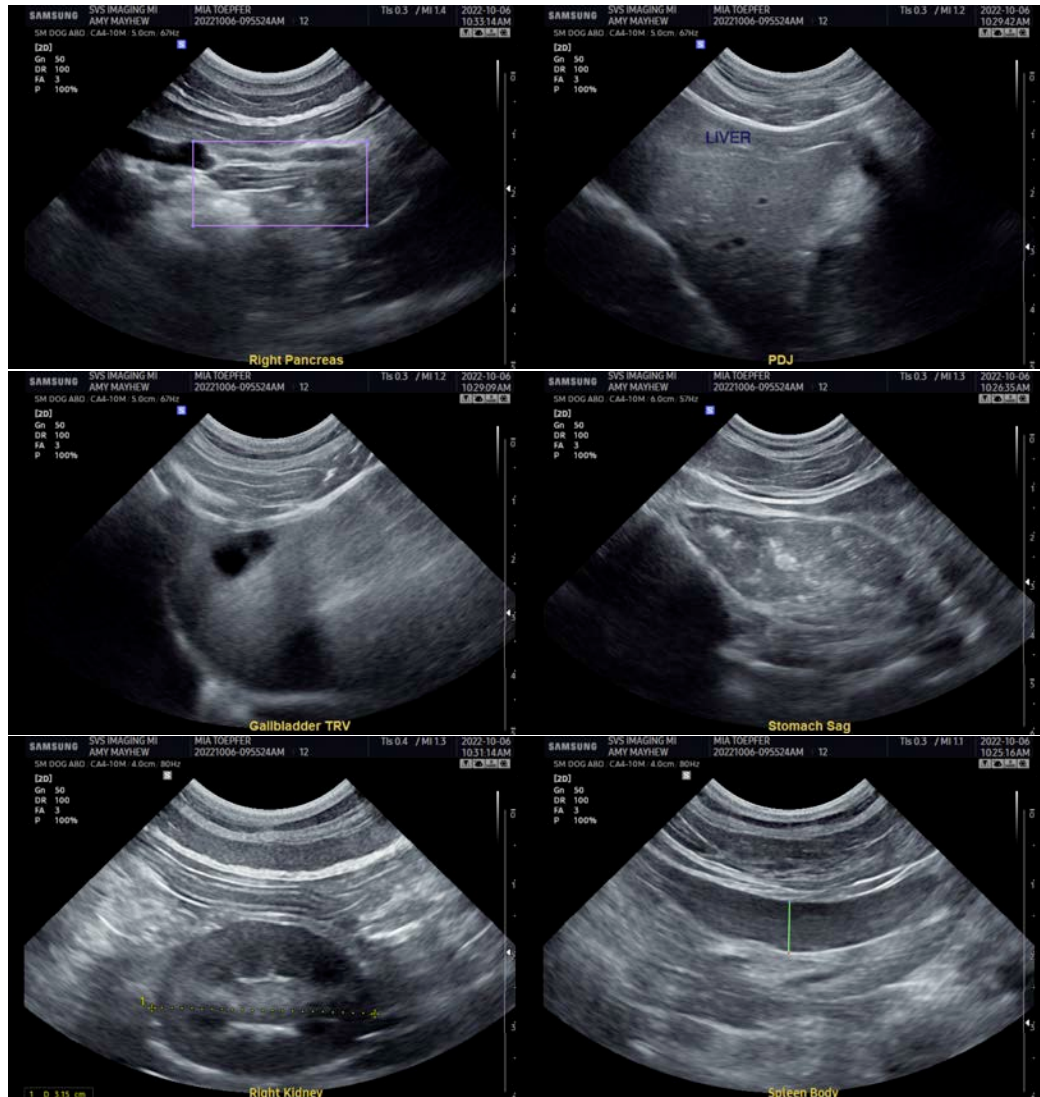
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**IMAGING PERFORMED BY**

Amy Mayhew, LVT

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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.

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

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