



**PATIENT**

Coco Register

**SPECIES**

Canine

**BREED**

Terrier X

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

41 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Dr. Tam Mengine

**HOSPITAL NAME**

Stoney Creek VH

**REFERRING VET**

Dr. Tam Mengine

**INVOICE**

35970

**DATE**

3/1/22

**PRESENTING CLINICAL SIGNS**

Acute lethargy and inappetence starting last night, with an episode of hematochezia today. Very tense abdomen on palpation, else exam unremarkable. Long history of slowly increasing ALP. In May 2021 ALT - 130, ALP - 1025. Today, ALT >4000, ALP 1702, else CBC / Chem unremarkable. CPL and Lepto PCR pending.

**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 (5.94 cm) with mild pyelectasia at 0.35 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 nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney has a normal shape and size (5.56 cm) with mild pyelectasia at 0.28 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 nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.43 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 0.60 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 large in size, and normal in echogenicity with rounded margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is ill-defined, irregular, hypoechoic tissue visualized on the right side of the liver forming an ill-defined mass effect, measuring approximately 8.94 cm x 6.26 cm. There is a small amount of free fluid and hyperechoic mesentery surrounding this liver.

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



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**Gastrointestinal**

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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.

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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 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.)

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Visualized peristalsis appears appropriate. Duodenum wall measured 0.44 cm. Jejunum wall measured 0.30 cm. There were no focal lesions consistent with obstruction or a mass effect observed.

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The ileocecal junction was visualized and exhibited normal intact wall layering. In some areas, the descending colon appears mildly thickened, measuring 0.25 cm. There is no significant loss of layering observed.

**Pancreas**

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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**

**WEIGHT**

41 Pounds

There is a small amount of free abdominal fluid visualized around the liver lobes and at the level of the urinary bladder. No lymphadenopathy is noted, but the omentum is of increased echogenicity, particularly around the caudal right quadrant of the abdomen.

**PRIMARY FINDINGS**

- Large, ill-defined hypoechoic and mottled liver mass – Findings are suspicious for a primary liver mass, but other differentials are possible (both benign and neoplastic).
- Mild bilateral pyelectasia – Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Small amount of free abdominal fluid and hyperechoic mesentery – most consistent with mild peritonitis (bacterial or sterile).

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**SECONDARY FINDINGS**

- Mild large intestinal wall thickening – likely consistent with colitis type symptoms described.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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There is an ill-defined mass effect on the right side of the liver. Fine needle aspirate of this tissue would be possible. If surgical removal would be considered, then a contrast CT scan to better evaluate margins and plans for surgery would be recommended.

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It is difficult to say if this is the sole reason for this patient not feeling well, as it is suspected that this lesion has been present for a while. You can have scenarios where a portion of the mass loses blood supply and becomes necrotic, there is a rupture, etc. Also, there could be concurrent colitis or even pancreatitis, which is not readily visualized on today's scan.

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- Recommend sampling of the free abdominal fluid if possible to determine if this represents hemorrhage or sterile or bacterial peritonitis.
- Recommend 3-view thoracic radiographs.
- Consider fine needle aspirate of the liver mass provided coagulation parameters are normal.
- If possible, recommend contrast CT scan of the abdomen.
- Consider symptomatic treatment for colitis and supportive care. If the patient is not improving, consider referral to a veterinary surgeon for surgical explore, liver lobectomy, etc.

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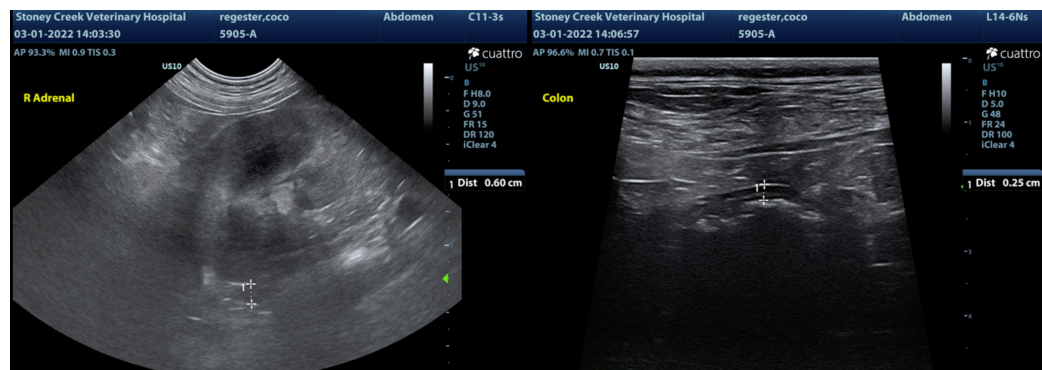
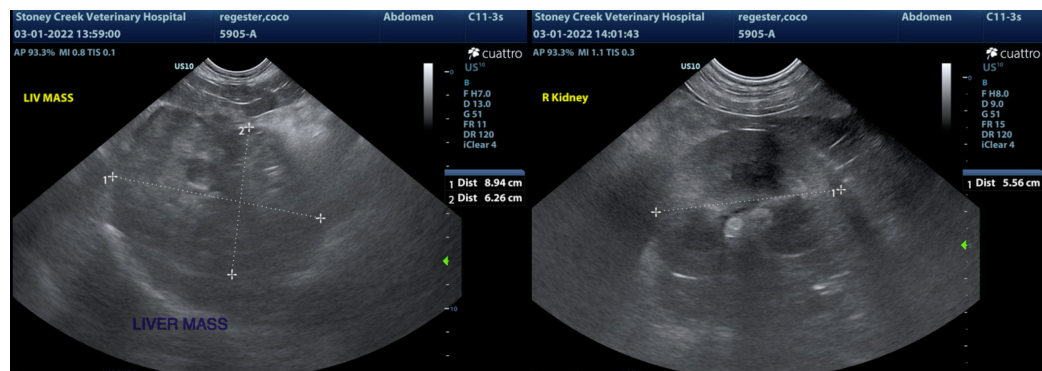
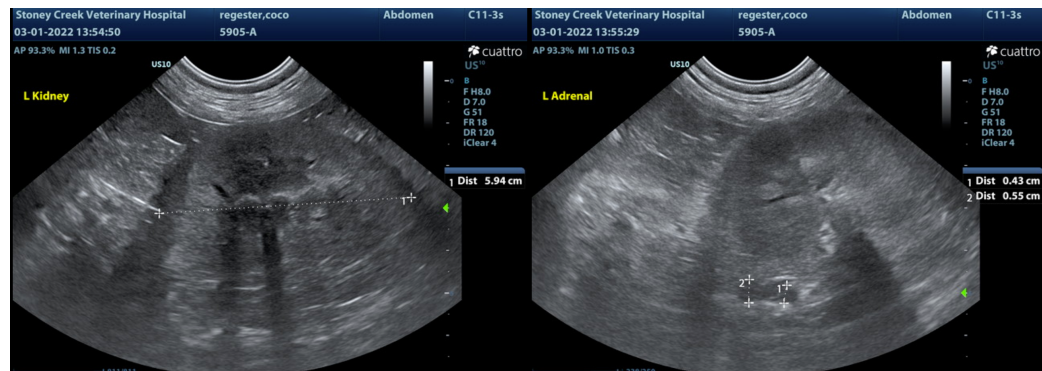
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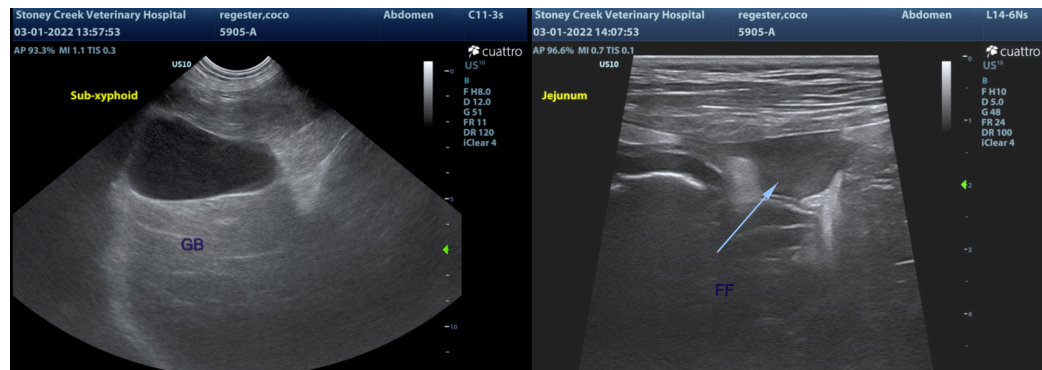
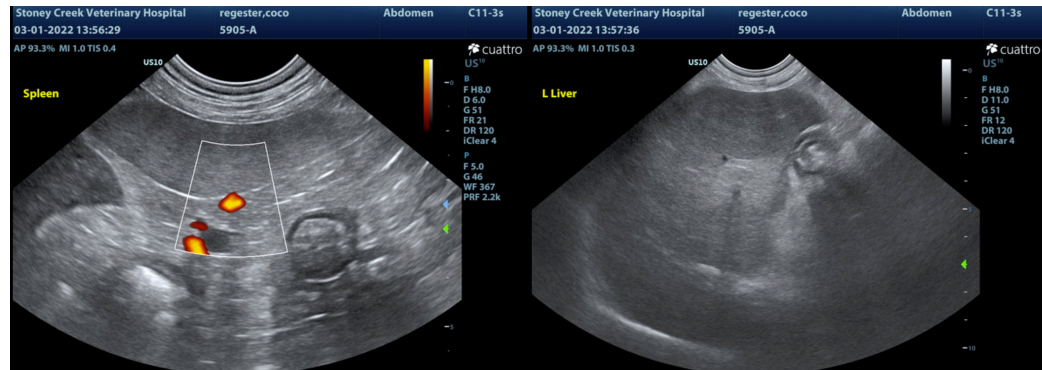
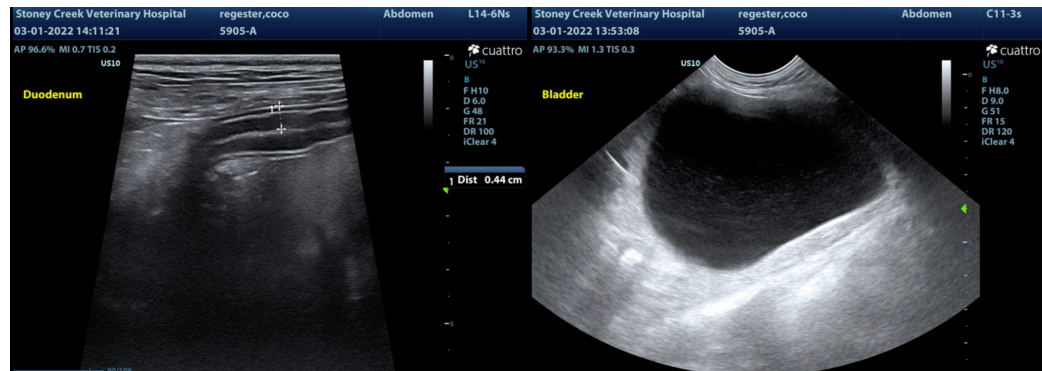
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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