



PATIENT

Gus Mahler

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

9 Years

WEIGHT

65 Pounds

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Dr. Tam Mengine

HOSPITAL NAME

Stoney CVH

REFERRING VET

Dr. Tam Mengine

INVOICE

37090

DATE

4/22/22

PRESENTING CLINICAL SIGNS

1 week history of intermittent vomiting, bloody diarrhea and anorexia that persisted despite starting cerenia, metronidazole, synacore and sulcrafate on 4/18 (but patient did unexpectedly start eating this AM, so was not fasted for U/S). On 4/18 CBC/ Chem unremarkable except low TP (globs and alb both low end of normal), Snap CPL abnormal, urinalysis pending. Did have a transiently elevated ALT (217, then 141, then normal again) over the course of 2020.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall appears to be of normal thickness with very slight mucosal irregularity. The area of the trigone, proximal urethra and ureteral papillae appear free of any mass lesions or calculi. Findings are most consistent with bacterial cystitis or lack of significant urine distention.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (6.88 cm). Overall echogenicity is slightly hyperechoic with poor 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 (6.34 cm). Overall echogenicity is slightly hyperechoic with poor 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 0.60 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 0.67 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 normal in size, and hypoechoic. The parenchyma is 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.

The gallbladder lumen is moderately distended. The wall of the gallbladder is hyperechoic and slightly prominent, measuring at 0.31 cm. It appears to have a relatively smooth mucosal surface with mild thickening or dependent debris in the apical portion. Luminal contents are primarily anechoic. The cystic and common bile ducts are not clearly visualized.



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Gastrointestinal

The stomach is dilated with a moderate to large amount of fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measured 0.50 cm. Jejunum wall measured 0.25 cm. Visualized peristalsis appears appropriate. While no focal mass lesions are observed, the proximal duodenum appears mildly corrugated, most consistent with focal enteritis.

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. Colon wall measures at 0.20 cm.

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.

PRIMARY FINDINGS

- Hypoechoic, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Hyperechoic, prominent gallbladder wall – The significance of this is unclear. This could be normal for this individual, or secondary to cholecystitis.
- Mildly corrugated proximal duodenum – most consistent with enteritis.

SECONDARY FINDINGS

- Slightly irregular urinary bladder wall – most consistent with bacterial cystitis or lack of urine distention. Recommend urinalysis and culture and continued monitoring.
- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.
- Moderate to large gastric ingesta – Patient had a meal this morning.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lesions observed on today's scan were relatively mild. I am hopeful that this represents resolving gastroenteritis. The liver appears subjectively hypoechoic. This would be most consistent with either



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inflammatory disease or infiltrative neoplasia (seems less likely). If this patient is not improving over the next several days, consider a liver function test and fine needle aspirate of the liver. I suspect the gallbladder wall appears prominent next to the hypoechoic liver, but it is additionally mildly thickened and possibly inflamed with secondary cholecystitis.

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The focal duodenal corrugation is most consistent with the enteritis reported. If the patient continues to not feel well, you could consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to look for concurrent pancreatitis that is not clearly evident on today's scan. Additionally, correlate results with abdominal radiographs to rule out the possibility of foreign material, which is not evidence on today's scan.

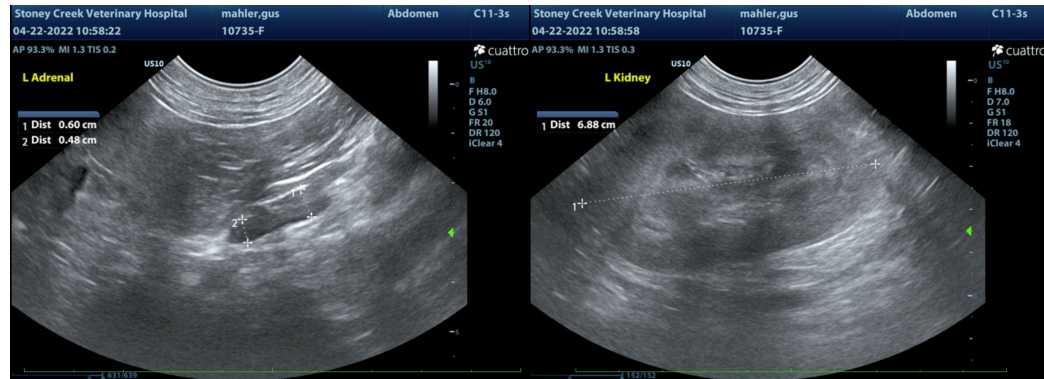
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Recommend urinalysis and culture to further evaluate the mildly irregular urinary bladder wall.

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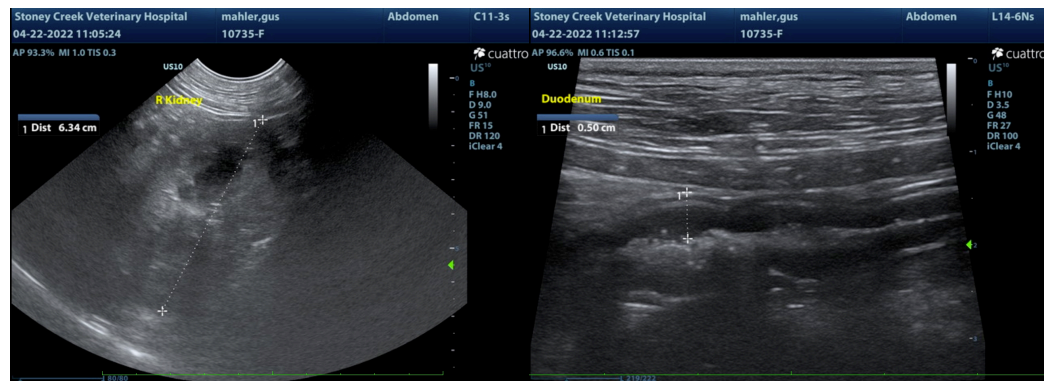
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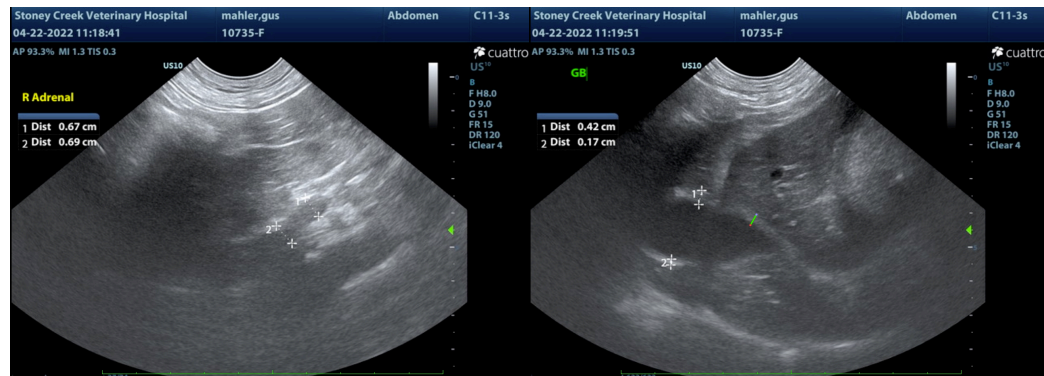


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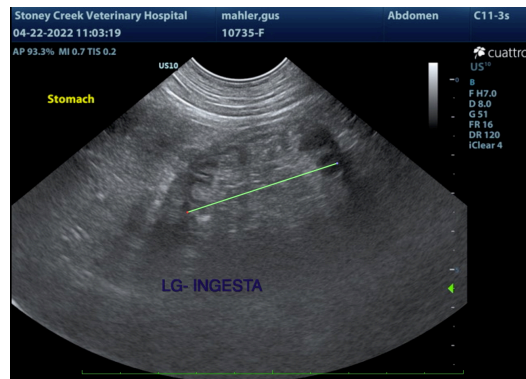
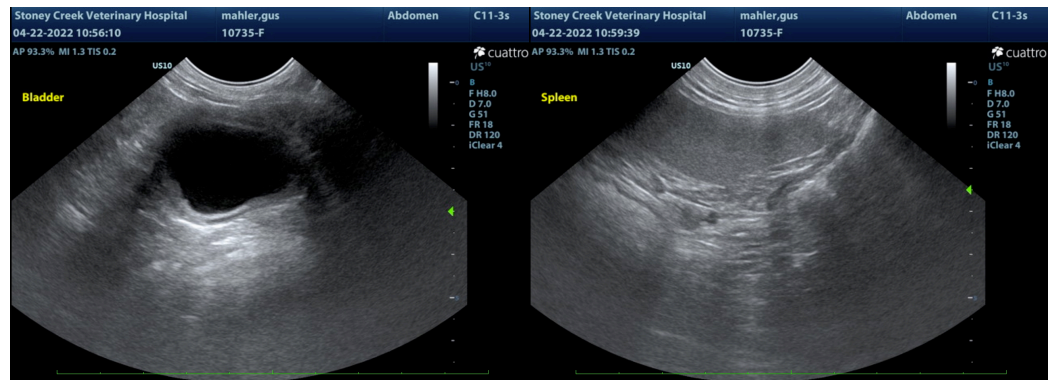
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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