



**PATIENT**

Kirby Gliem

**SPECIES**

Canine

**BREED**

Bichon

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

11.6 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**

35690

**DATE**

2/16/22

**PRESENTING CLINICAL SIGNS**

3-4 weeks of diarrhea (liquid) and weight loss, and 1 week of vomiting & poor appetite. Initially responded to low fat diet and metronidazole, but now having liquid diarrhea on metronidazole. Patient had not eaten in ~ 18 hrs. CBC / Chem unremarkable

**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 prostate is normal in size (0.72 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.27 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 (4.69 cm) with a large cortical cyst arising from the cranial pole measuring 2.5 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 0.44 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 0.55 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 smooth peripheral margins. 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 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**

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The stomach is moderately dilated with fluid and shadowing material, most consistent with normal ingesta and mass. It largely measures at a normal thickness of <0.7 cm, but there is some variability due to the presence of rugal folds, and there is a focal area towards the caudal aspect of the body of the stomach where the wall measures at 1.2 cm with less distinction of layering. Peristaltic activity appears subjectively reduced. Findings are most consistent with either focal wall thickening or an atypical rugal fold.

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The visualized areas of duodenum, jejunum and ileum have a uniform diameter with minimal fluid distension. Wall thickness is moderately to severely thickened. Bowel loops follow a typical curvilinear path. Some areas have reduced detail of wall layering with mucosal speckling. Duodenum wall measured 0.5 cm. Jejunum wall measured 0.35, 0.41 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed

**SEX**

Neutered Male

The ileocecal junction was visualized and exhibited largely normal intact wall layering. The more distal colon has non-formed fecal material and mild/subjective wall thickening at 0.17 cm. There is no evidence of loss of layering or mass effects.

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**Pancreas**

The pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

**WEIGHT**

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**Free Abdomen**

There is a scan amount of free abdominal fluid visualized. There are occasional prominent mesenteric lymph nodes measuring 0.35, 0.37, 0.41 cm. The omentum is uniformly hyperechoic.

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**ULTRASONOGRAPHIC FINDINGS**

- Decreased corticomedullary distinction in both kidneys with a right-sided cortical cyst - Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Large, 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.
- Mildly fluid dilated stomach with subjective focal wall thickening- Findings could be consistent with a focal gastric thickening (mass, ulcer, etc.) or an atypical rugal fold.
- Moderate to severely thickened small intestine with mucosal fogging and decreased detail of wall layering in some areas – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia. A reduction in the detail of wall layering favors either severe intestinal disease or neoplastic infiltration. Biopsy is recommended.
- Mild to moderate mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The general impression of this scan is that of thickened, edematous bowel with decreased wall layering and inflammation. Additionally, there are prominent mesenteric lymph nodes, prominent omentum, an inflamed pancreas, and abnormal gastric wall. In a dog this age, primary differentials would be food allergy, severe IBD, lymphangiectasia, or intestinal neoplasia. Biopsy is likely necessary to differentiate.

- Consider a GI panel with qualitative PLI, TLI, cobalamin and folate to look for evidence of B12 deficiency, exocrine pancreatic insufficiency, pancreatitis, etc., which may help manage medical treatment.
- If eating, consider a novel protein/hydrolyzed protein prescription diet.
- Recommend probiotic therapy.
- Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.
- If biopsies are obtained, recommend evaluation of the gastric wall at the same time and possible biopsy.

The kidneys have decreased corticomedullary distinction, consistent with chronic renal disease and advanced age.

- Recommend blood pressure evaluation.
- Recommend urinalysis and culture.
- Recommend urine protein/creatinine ratio.

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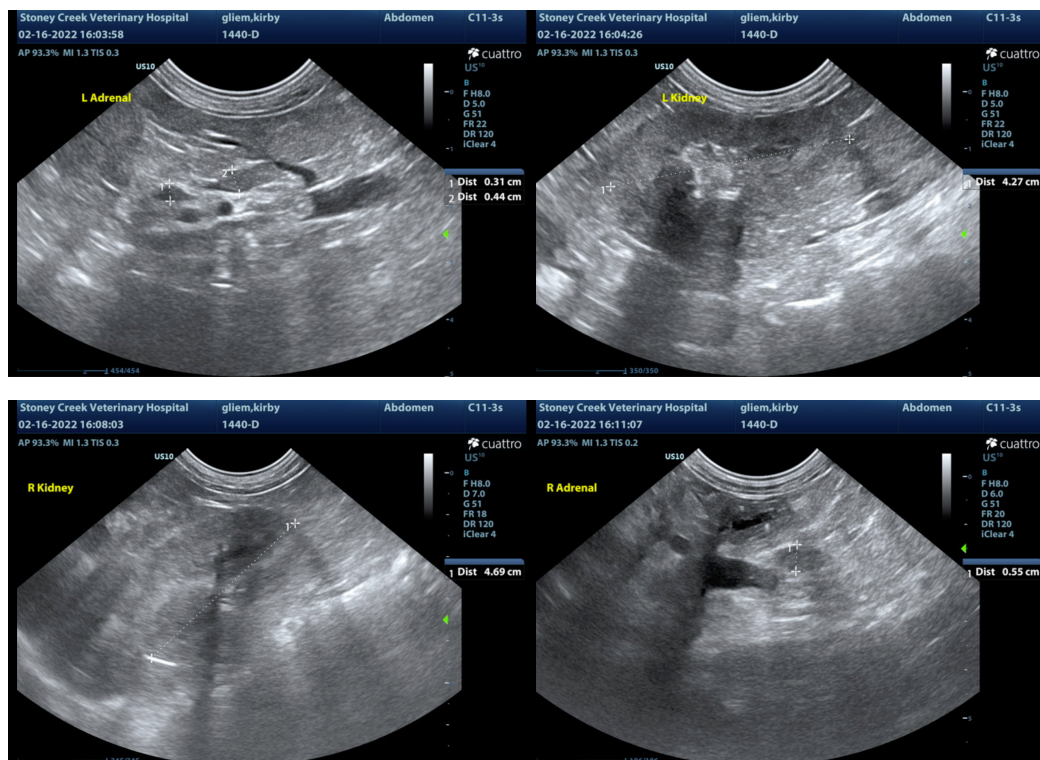
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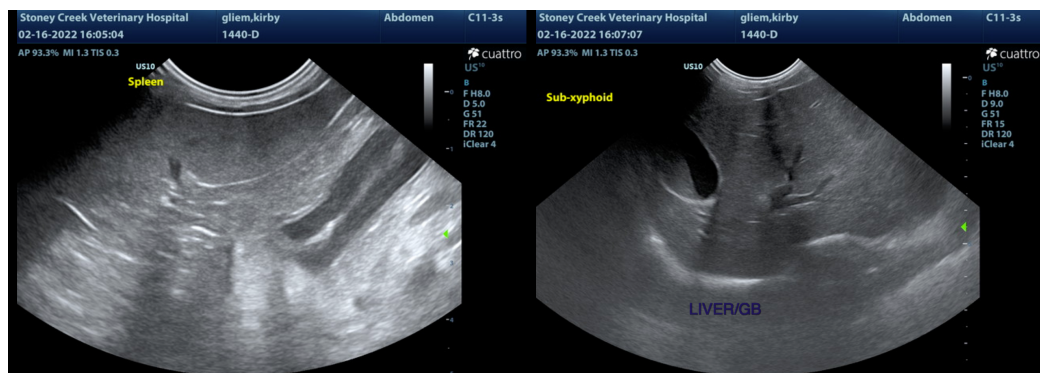
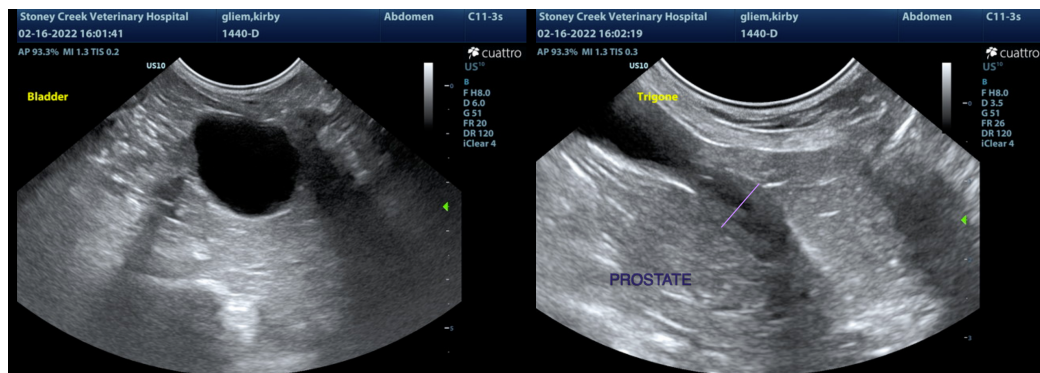
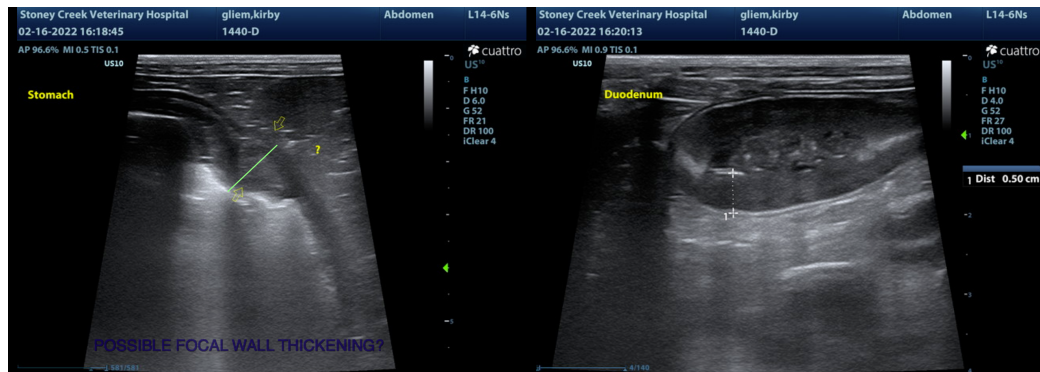
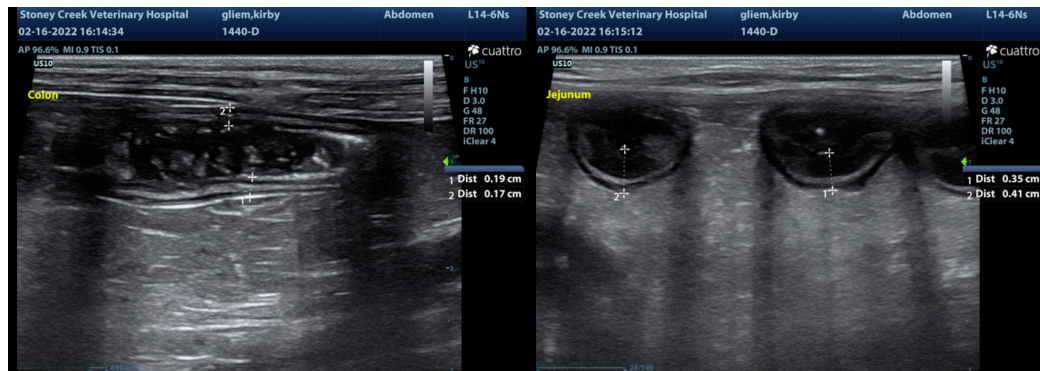
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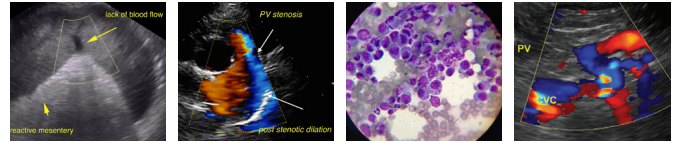
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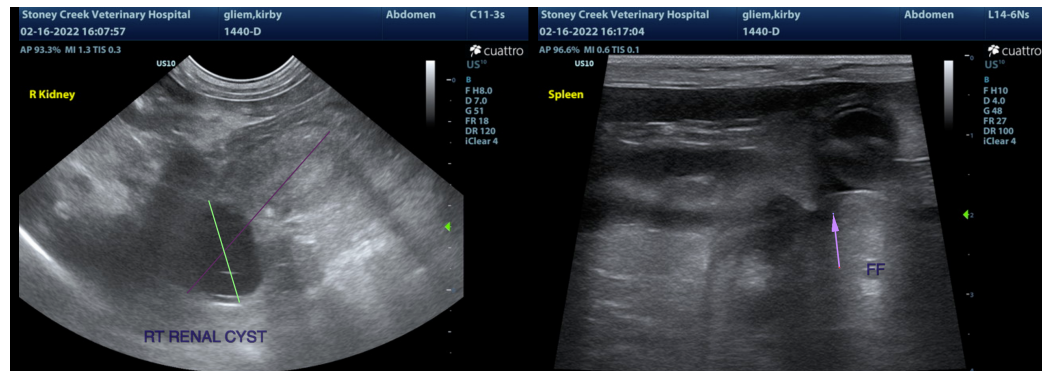
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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