

**PATIENT**

Keta Clausen

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

SF

**AGE**

14 years

**WEIGHT**

3.6 lbs

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Kieran Hartley

**INVOICE**

14372

**DATE**

7/22/22

**PRESENTING CLINICAL SIGNS**

vomiting, inappetence.

Abnormal PE/Chem/CBC/UA Results: BCS 3/9, 101.7 F temperature, Mild elevations in ALT, GGT, TBili, SDMA. Physical exam relatively unremarkable, no obvious masses or pain palpated within the abdomen.

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

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 1.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.0 cm in length. The right kidney measured 3.0 cm in length.

**Adrenal Glands**

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 1.1 cm length x 0.30 cm width at the caudal pole. The right adrenal gland measured 1.3 cm length x 0.34 cm width at the caudal pole. No evidence of adrenal tumors or enlargement was noted.

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

**Liver/ Gallbladder**

The liver was normal in size and contour with subjective subtle hypoechoic hepatic parenchyma exhibiting mild coarse echotexture. Minor Increased prominence of the portal vascular borders was noted. The gallbladder was distended in size. The gallbladder walls were sonographically normal. No evidence of gallbladder inflammatory criteria was noted. Moderate to marked inspissated uniform mildly hyperechoic sludge was present in the gallbladder lumen measuring approximately 2.5 cm in diameter.

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***Gastrointestinal***

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Mild retained anechoic fluid was present. The pylorus wall measured 0.38 cm width.

The small intestine presented intact wall layering and primarily maintained a 1:3 muscularis/mucosa ratio with segmental propensity for mildly prominent to hyperechoic submucosa layer. The duodenum wall measured 0.30 cm width. The jejunum wall measured 0.23 cm width.

The colon walls presented intact yet mildly prominent wall layering with mild thickened to echogenic submucosa. Nonformed to liquid fecal matter was present in the colon lumen with lumen dilation.

***Pancreas***

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

***Free Abdomen***

No evidence of overt lymphadenopathy was present. Regional mildly hyperechoic omentum was present in the cranial abdomen primarily around the stomach and in the area of the gallbladder. No evidence of pericholecystic or peritoneal free fluid.

**ULTRASONOGRAPHIC FINDINGS**

- Gastroenterocolitis pattern with mild gastric hypomotility
- Benign hepatopathy
- Distended gallbladder containing moderate to marked inspissated uniform hyperechoic nonshadowing sludge - suggestive of emerging to atypical mucocele
- Subjective mild mixed echogenic to remodeled pancreas - age-related variant with potential for chronic to chronic active pancreatitis
- Regional mildly hyperechoic omentum around the gallbladder and stomach
- Mild chronic renal changes

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given reported low-grade hepatic enzyme elevations and without evidence of cranial abdominal or subxiphoid discomfort / pain on palpation, the gallbladder does not appear to be an immediate surgical issue. However, close monitoring for evidence of progressive hepatic enzyme elevations, evidence of cholestasis, or cranial abdominal / subxiphoid pain going forward is recommended.

A spec cPL +/- assessment of cobalamin / folate levels for further assessment of the pancreas and small bowel could be considered. Some or all of the following protocol is suggested with as-needed gastrointestinal support.

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svsmobileimaging.com 309-737-3070



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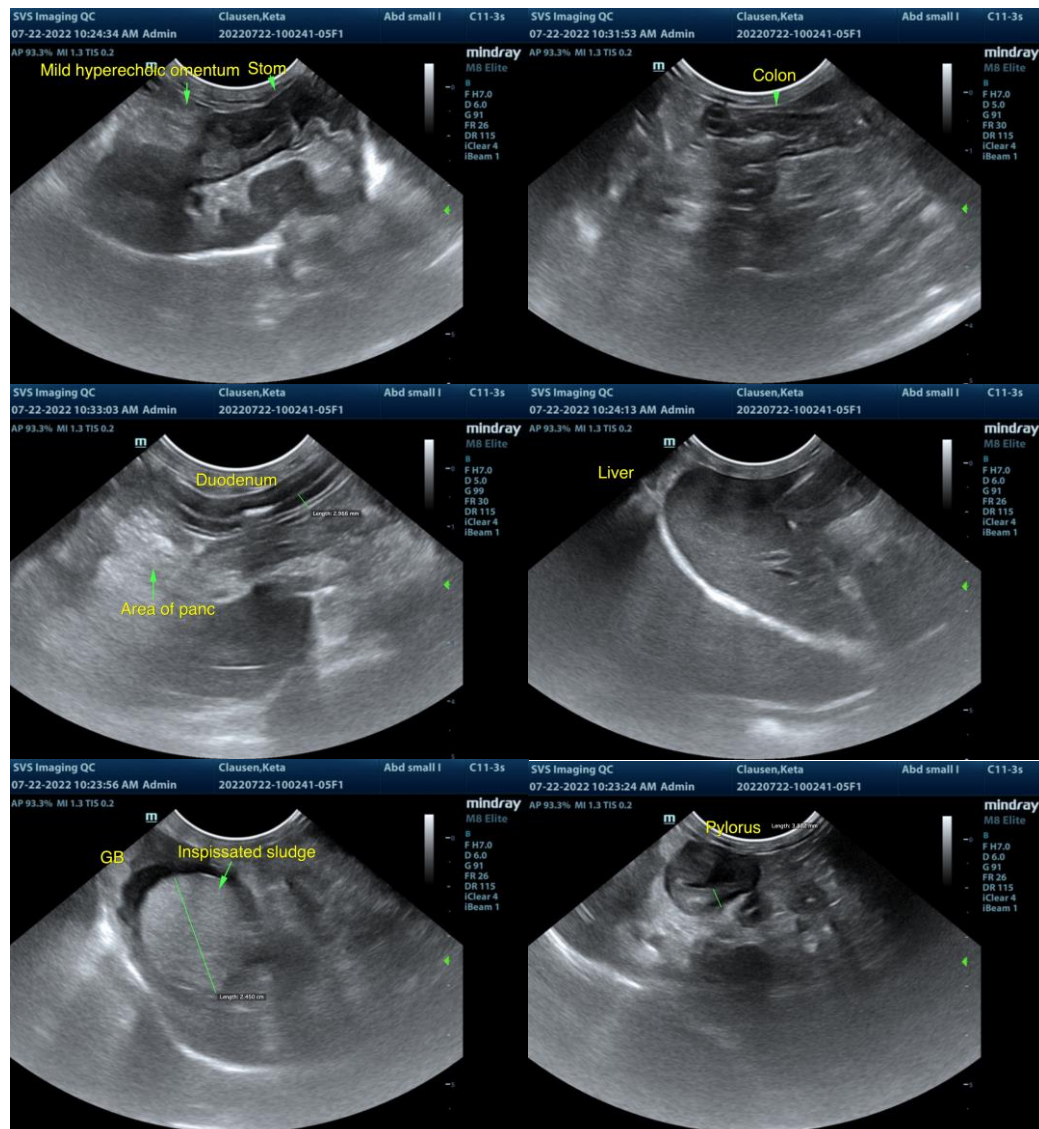
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Enrofloxacin 5 mg/kg SID PO & Metronidazole (10-20 mg/kg po bid) over 3 weeks, Ursodiol (10-15 mg/kg p.o. q24h) over 8 weeks and recheck sonogram. Monitor rapid rise in ALT, SAP, Bilirubin, bilirubinuria, leukocytosis, focal cranial abdominal subxyphoid discomfort or progressive anorexia. More information regarding clinical emerging mucocele issues may be found with our article and research at <http://sonopath.com/resources/articles>, Defining a GB Mucocele and Clinical Parameters in Dogs with Sonographically Diagnosed Surgical Biliary Disease from ECVIM 2009.





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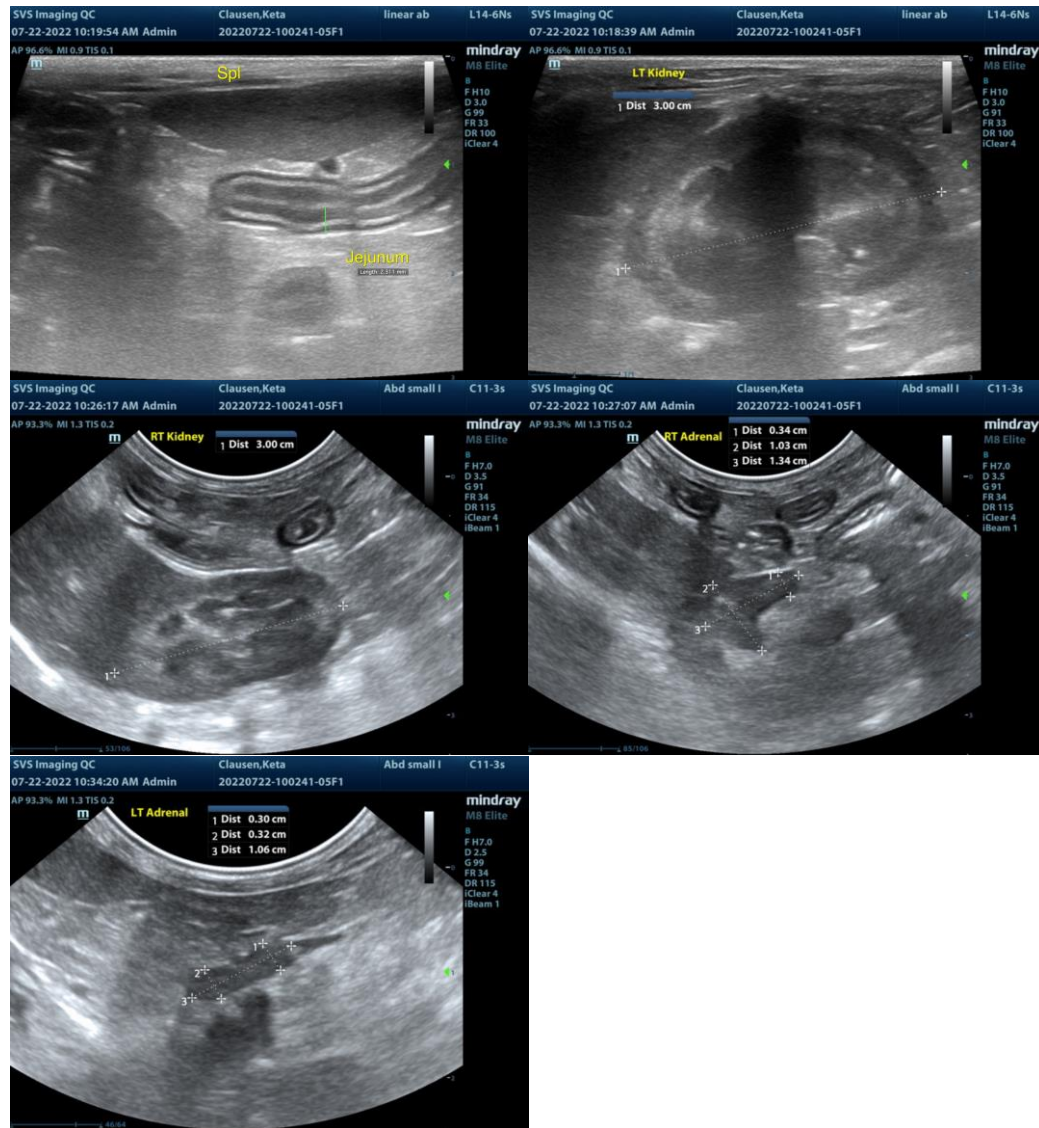
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com