

**PATIENT**

Jessy Leuthauser

**SPECIES**

Canine

**BREED**

Chow Mix

**SEX**

SF

**AGE**

11 years

**WEIGHT**

44 lbs.

**INTERPRETED BY**R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)**IMAGING  
PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Jillian Sullivan, DVM

**INVOICE**

12459

**DATE**

10/27/21

**PRESENTING CLINICAL SIGNS**

-History of chronic pancreatitis. Vomiting, diarrhea, PU/PD x 2 weeks duration. Lost 5#. Arrhythmia upon cardiac auscultation. Currently on Metronidazole, Denamarin, and Amoxicillin.

Abnormal PE/Chem/CBC/UA Results: Monday ECG interpretation form IDEXX= 3rd degree AV block Owner declines referral to a specialist. CBC: WNL, ALT 366, AST 110, ALP 185, Creatine Kinase 234, T4 WNL, Free Cath UA: pale yellow, SpGr 1.023, pH5.0, WBC 28/hpf, RBC 2/hpf. Awaiting spec cpl. Today HR on ECG today was 39 bpm

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

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.0 cm in length. The right kidney measured 6.3 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.2cm length x 0.64 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.7 cm length x 0.77 cm width at the caudal pole.

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild medial folding of the cranial spleen was noted. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease. No splenic masses or nodules were noted.

**Liver/ Gallbladder**

The liver exhibited generalized enlargement with normal structure and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was mildly distended in size. The gallbladder wall was mildly thickened in appearance consisting of a mild echogenic double rim corresponding to the inner and outer portions of the wall. This is consistent with gallbladder wall edema. Possible

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causes may include acute inflammation, edema and anaphylaxis. Mild, nondependent yet nonorganized, echogenic luminal debris was present in the gallbladder. Gallbladder wall width measured 0.35 cm in width. The common bile duct was normal.

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***Gastrointestinal***

The stomach exhibited intact yet mild prominent wall layering. The lumen was empty without evidence of retained ingesta, fluid, or foreign material. The pylorus wall width measured 0.54 cm.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material. The duodenum wall width measured 0.35 cm.

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The colon walls presented intact yet prominent wall layering with mild thickened to echogenic submucosa. Subjective semi-formed to soft colonic feces was present in the colon lumen with lumen dilation.

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***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.

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***Free Abdomen***

Mild perihepatic free fluid was present. Potential for minor hepatic lymphadenopathy adjacent to the portal vein is possible, although evidence of significant lymphadenopathy was not noted.

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**ULTRASONOGRAPHIC FINDINGS*****Primary Findings***

- Hepatopathy - subjectively acute on chronic, hepatitis / cholangiohepatitis (viral, bacterial, Leptospirosis, toxin), vacuolar hepatopathy, cholestasis, or neoplasia possible
- Mildly distended gallbladder with generalized mild wall edema and luminal debris - non-mucocele, acute cholecystitis, wall edema owing to portal hypertension (assuming normal albumin levels and no evidence of right heart disease (less likely anaphylaxis or gallbladder neoplasia)
- Mild perihepatic free fluid
- Gastroenterocolitis pattern
- Heterogeneous pancreas - potential low-grade to chronic pancreatitis vs. age-related variant

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***Secondary Findings***

- Mild splenic folding - not indicative of underlying splenic pathology, likely patient variant

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Assuming normal clotting status, hepatic FNA for screening cytology is recommended for further assessment. The perihepatic free fluid and gallbladder wall edema is likely owing to primary hepatic parenchymal pathology, assuming no evidence of subnormal albumin levels or elevated right heart pressure.



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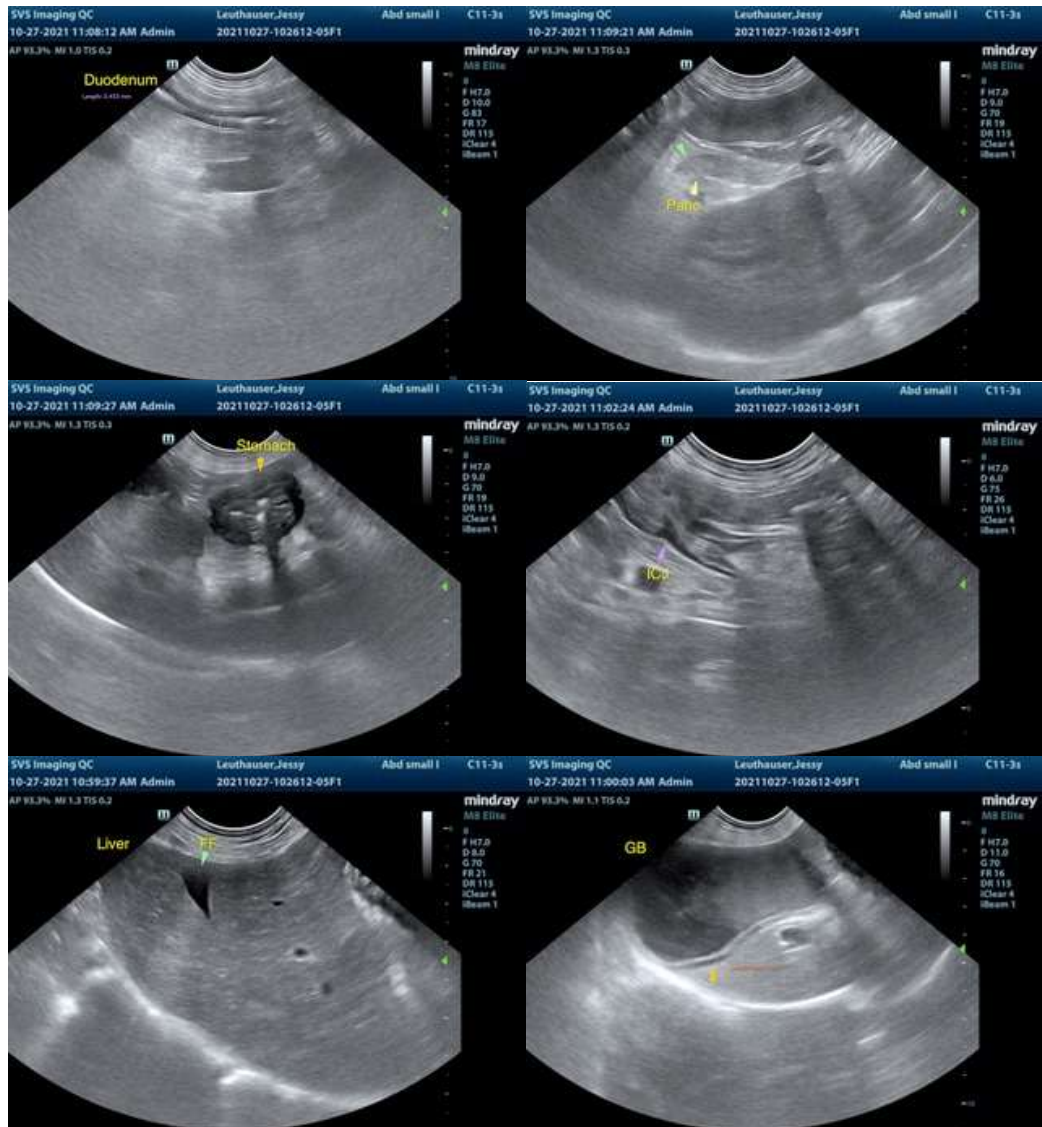
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Empirically, medical therapy for assumed hepatitis / cholangiohepatitis, as well as as-needed gastrointestinal support would be appropriate. Judicious IV fluid use may be indicated pending echocardiographic assessment. Leptospirosis titer / PCR +/- screening UCCR may be considered given the PU/PD. However, no overt evidence of significant adrenomegaly or adrenal tumors. Assessment of serum cobalamin and folate levels may be considered to rule out occult gastrointestinal disease, given the patient's weight loss.



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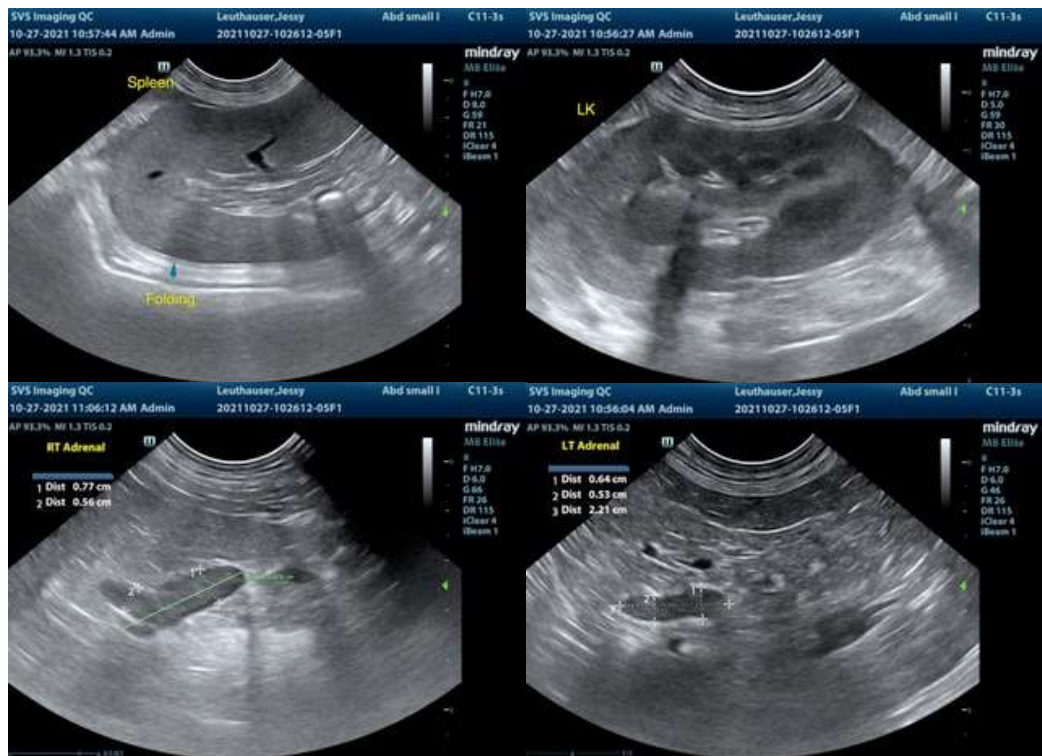
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)**  
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