


**PATIENT**

Maggie Johnson

**SPECIES**

Canine

**BREED**

Mixed

**SEX**

Spayed Female

**AGE**

7 Years

**WEIGHT**

41.6 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Jessie Evoniuk

**HOSPITAL NAME**

State Avenue VC

**REFERRING VET**

Dr. Shelley Lenz

**INVOICE**

16381

**DATE**

6/28/22

**PRESENTING CLINICAL SIGNS**

History: Won't eat anything. Went from not eating dry to not eating wet to not eating human food. Won't even take treats while on walks. Sunday was last time she ate and kept it down. Ate Cherios and treats and threw them up with the half hour. No blood or mucous present. Only V+ when eats, small amount. Had a BM last night, was normal. Is drinking water. Waterford said she was dehydrated C/S-Sneezing L/B/TRVL-none Meds/Supps- liver medication and antibiotic. O unsure what ones. Hasnt been able to get P to take them. BAR. BCS 4/9. H/L/EET/LN/skin wnl. palpation of the abdomen no pain/mass palpated.

Abnormal PE/Chem/CBC/UA Results: Chem: ALB 2.8 ALP 132 ALT 179\* AMY 1654\* TBIL 3.4\* BUN 8\* CA++ 13.6\* PHOS 6.3 CRE 2.2\* GLU 114\* NA+ 141 K+ 4.6 TP 6.8 GLOB 3.9 CBC: HGB 19.1+ HCT 57.63+ PLT 140- Remainder of CBC WNL

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

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 were noted. Aortic trifurcation was normal.

Normal size and margination was 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 pyelectasia. The left kidney measured 5.6 cm in length. The right kidney measured 6.4 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 0.47 cm width at the caudal pole and 0.40 cm width at the cranial pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.40 cm.

**Spleen**

The spleen exhibited potential for mild enlargement with generalized mild splenic parenchyma heterogeneity. A solitary nondisruptive well demarcated hypoechoic nondisruptive nodule was noted in the cranial spleen, measuring 0.74 cm in diameter.

**Liver**

The liver presented normal in size. The hepatic parenchyma revealed diffuse reduced echogenicity compared to the spleen and renal cortical parenchyma with a mild coarse echotexture. Increased portal vein prominence was evident. The capsule of the liver was normal in margination. Distinct masses or nodules were not evident. The hepatic and portal vasculature were normal in appearance. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

The gallbladder was mildly distended in size yet no evidence of posthepatic obstructive pattern. Primarily anechoic content was present with mild hyperechoic debris, primarily in the area of the caudal lumen and gallbladder neck. No evidence of peripheral gallbladder inflammation.



**PATIENT**

***Gastrointestinal***

Maggie Johnson

The stomach presented intact yet mildly prominent wall layering and empty lumen. No evidence of retained ingesta, fluid or foreign material. The gastric body wall measured 0.52 cm.

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Canine

The small intestine presented intact wall layering with primarily maintained 1:3 muscularis/mucosa ratio with subjective propensity for segmental mildly prominent to echogenic submucosa layer. No evidence of small intestinal mechanical/metabolic ileus. The small intestinal wall measured 0.32 cm.

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Normal visible colon wall layers were present with apparent formed feces in lumen.

**SEX**

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The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

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***Free Abdomen***

No omental masses, lymphadenopathy or peritoneal effusion was present.

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**ULTRASONOGRAPHIC FINDINGS**

- Gastroenteritis pattern
- Nonspecific splenic nodule
- Hypoechoic liver
- Nonobstructive mild common bile duct dilation with mild hyperechoic to possible emerging mineralized debris

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The appearance of the liver was nonspecific yet potentially indicative of acute hepatopathy given the hypoechoic parenchyma echogenicity. Considerations may include acute hepatitis (viral, bacterial, leptospirosis, toxin, etc.), reactive hepatopathy, vacuolar hepatic changes and nonobstructive cholestasis, occult neoplasia or other hepatopathy. Potential for low-grade to chronic pancreatitis could be present yet sonographically normal.

**IMAGING PERFORMED BY**

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Given the hypercalcemia, and for further assessment, assuming normal clotting status, hepatic FNA using a 25-gauge needle, is warranted for screening cytology. Leptospirosis titers/PCR is warranted if endemic to the area or potential exposure. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. No obvious evidence of significant gastrointestinal pathology with mild inflammatory criteria.

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Hospitalization with IV fluids, hepatogastrointestinal support and monitoring of hepatic and renal parameters and assessment of clinical response would be reasonable.

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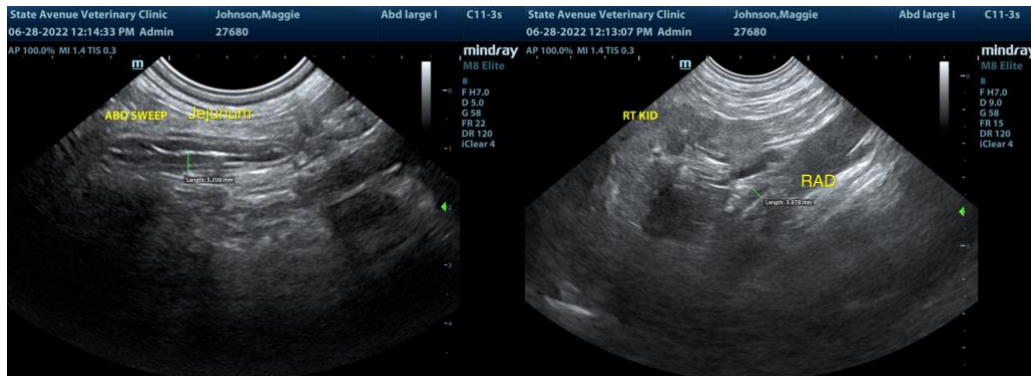
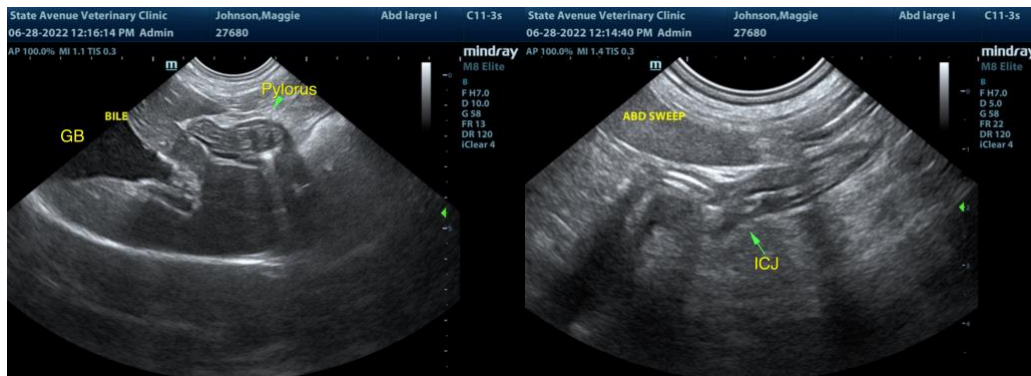
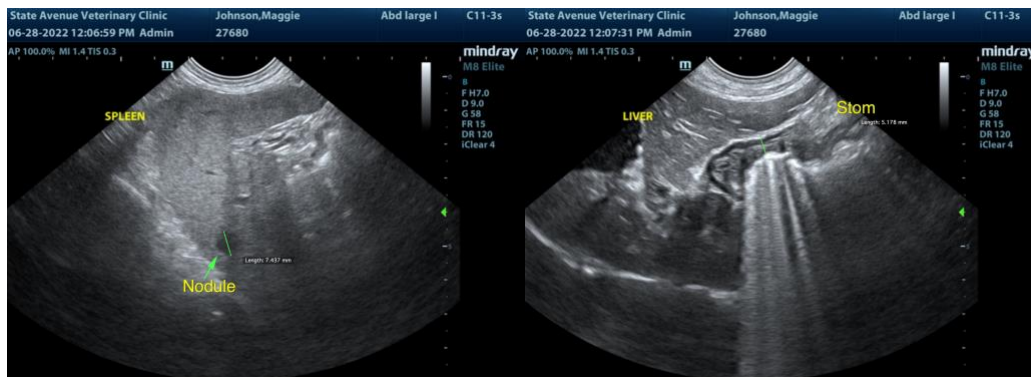
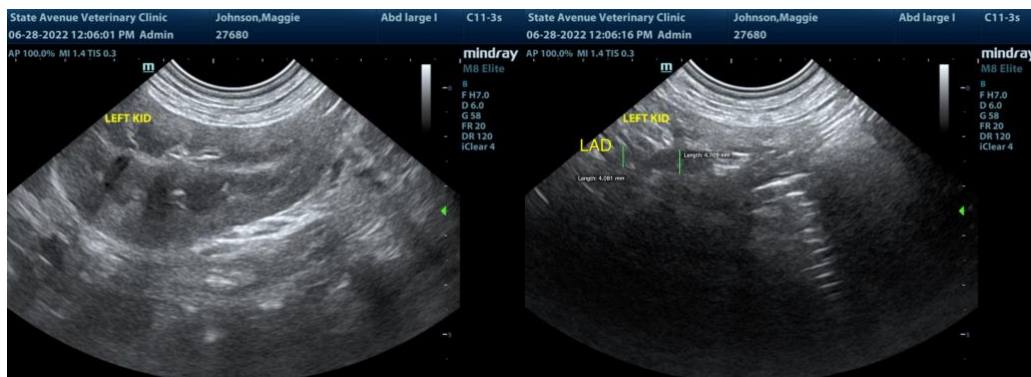
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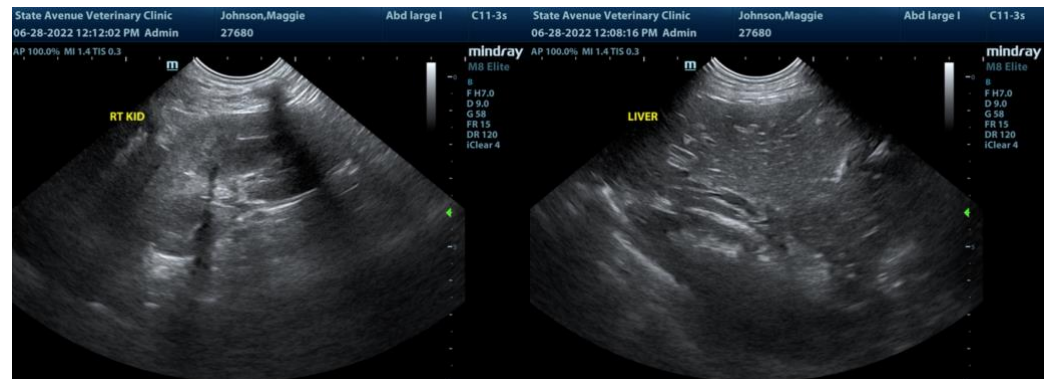
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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