



**PATIENT**

Nella McCabe

**SPECIES**

Canine

**BREED**

Yorkie

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

5.07 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jose

**HOSPITAL NAME**

Animal Clinic of  
Queens

**REFERRING VET**

Dr. Suci

**INVOICE**

14508

**DATE**

3/31/22

**PRESENTING CLINICAL SIGNS**

History: Nella vomited once yesterday (bile) and she vomited once today (somewhere 2-5 hours ago – owner found the vomit when arriving home from work). Today she was straining to defecate, she had small bowel movements, soft, dark in color and mucousy, no blood. Last time she ate with normal appetite was 2 days ago, yesterday the appetite was poor, today she didn't want to eat. No change in the diet (home-made diet, owner cooks daily, uses the same ingredients), no table food. She does not pick up things from the ground when walked, she does not chew things. Nella is up to date with her vaccines, and she is the only pet in the house. No medical problems in the past. No coughing or sneezing, the water intake and urination are normal.

Abnormal PE/Chem/CBC/UA Results: ABD: slightly tense, not painful, no obvious masses palpated, no fluid wave appreciated CBC: normal WBC (9.39) high hemoglobin:(20.5) , hematocrit:(54.6%) CHEM: high ALT (>1000), high ALP (407), high GGT (18) EPOC: high hematocrit (62%) high pCO2 and TCO2 mild acidosis (7.321) CXR: cardiomegaly, no lung patterns AXR: liver extending over the costal arch, stomach distended with gas and fluid, mild gas in the small intestine (non-obstructive pattern), gas in the colon, no obvious GI radiodense FB. UA: Pending Superchem: Pending

**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 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 3.6 cm in length. The right kidney measured 3.7 cm in length.

**Adrenal Glands**

Both adrenal glands were mildly prominent in size yet maintained symmetrical contour and hypoechoic parenchyma. The left adrenal gland measured 0.47 cm at the cranial pole and 0.62 cm at the caudal pole. The right adrenal gland measured 0.67 at the cranial pole and 0.66 cm at the caudal pole.

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. 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.

**Liver**

The liver was mildly hypoechoic with mild increased prominence of portal vascular borders and exhibiting generalized enlargement. Distinct masses or nodules were not evident.



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The gallbladder was non-distended in size. The gallbladder wall was thickened in appearance, primarily dorsal gallbladder wall, consisting of an echogenic double rim corresponding to the inner and outer portions of the wall, measuring approximately 0.13 cm wall width. This is consistent with gallbladder wall edema. Possible causes may include acute inflammation, edema and anaphylaxis. Mild nondependent yet inspissated nonmineralized luminal debris was present with primarily anechoic content. No overt evidence of peripheral gallbladder inflammation or effusion. The common bile duct was indistinctly visualized yet without overt evidence of post hepatic obstruction.

***Gastrointestinal***

The stomach exhibited sonographically unremarkable wall layering yet mild to moderate gas distention.

The duodenum presented intact yet mildly prominent wall layering. The duodenum wall measured 0.37 cm. The jejunum and ileum to the level of the colon were overtly normal without evidence of mechanical/metabolic ileus.

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

***Pancreas***

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

***Free Abdomen***

Several enlarged hepatic lymph nodes were present, adjacent to the portal vein, as well as potential craniomesenteric lymph nodes. These lymph nodes were homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. No effusion was noted.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- Acute hepatopathy with mild associated hepatic lymphadenopathy
- Gallbladder wall edema with mild nondependent inspissated luminal debris
- Heterogeneous pancreas- nonspecific, age-related variant, potential for concurrent low-grade to chronic pancreatitis
- Duodenitis, possible generalized enteropathy

**Secondary Findings**

- Mild chronic renal changes

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The most likely etiology for the hepatic and gallbladder presentation would be acute hepatitis (viral, bacterial, leptospirosis, toxin) and in line with the history, hemoconcentration and primarily elevated ALT. Additional considerations may include anaphylactic reaction, acute cholecystitis with potential for emerging gallbladder mucocele or infiltrative hepatic neoplasia. Further assessment may include FNA cytology of the liver (assuming normal clotting status) +/- leptospirosis titers/PCR (if potential exposure or if endemic to the area).



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Empirically, hospitalization with therapy for acute hepatitis, cholestasis, potential low-grade chronic pancreatitis and as needed gastrointestinal support would be reasonable. Close monitoring of hepatic enzymes or for evidence of increasing cholestasis with recheck sonogram, if these clinical signs are noted, or if persistent/progressive gastrointestinal signs, is recommended.

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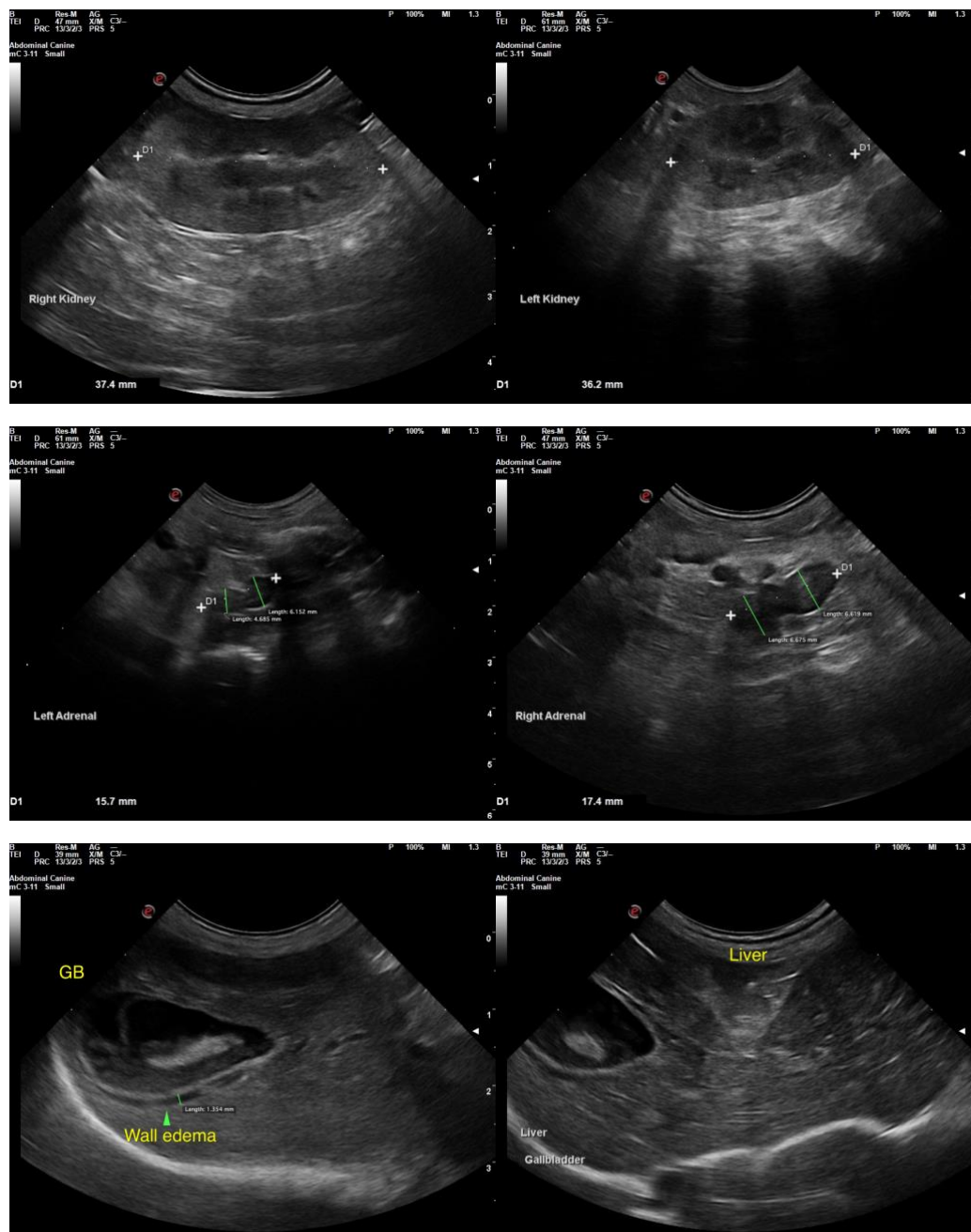
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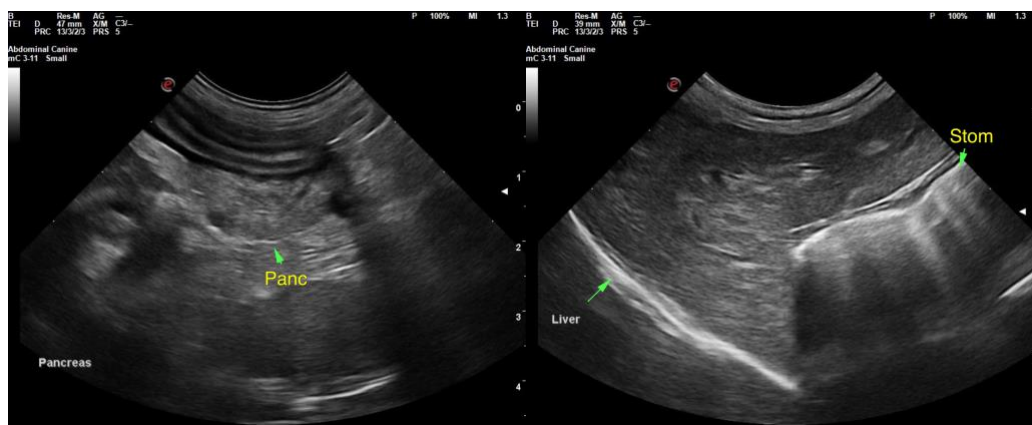
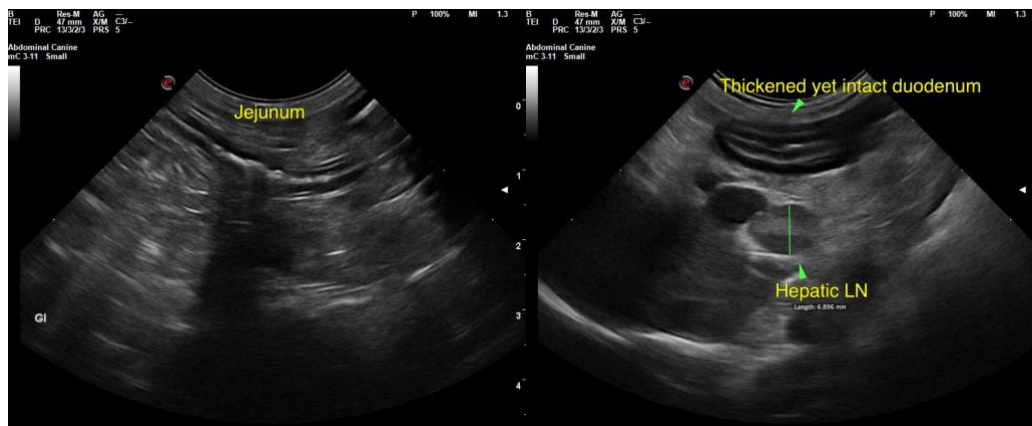
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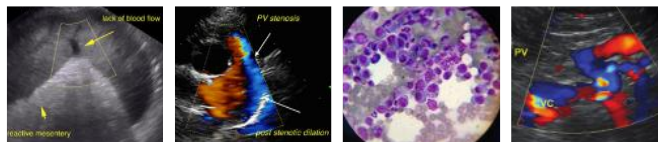
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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info@SonoPath.com

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