



**PATIENT**

Zippy Adams

**SPECIES**

Canine

**BREED**

Mixed

**SEX**

MN

**AGE**

11yr

**WEIGHT**

17.8kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Erin Wicks

**HOSPITAL NAME**

Shores Veterinary  
Emergency Center

**REFERRING VET**

Dr. Lupole

**INVOICE**

11730ag

**DATE**

09/27/2022

**PRESENTING CLINICAL SIGNS**

Presented at our hospital for going on a walk couple days ago- picked something up- O unsure what could have been. Currently staying in a RV park. Next morning was up 3-4x's with diarrhea, started vomiting later in day after drinking water, then bloody diarrhea started. Was at York today before coming over- did radiographs and bw- unremarkable. Was sent home with SQF and Cerenia injection and meds TGH Previous Health Concerns: increased liver enzymes, sensitive stomach Current Medications: Denamarin, Cerenia inj Appetite/When did they eat last: decreased; yesterday

Abnormal PE/Chem/CBC/UA Results: Cardiovascular: Muffled due to inc. resp rate; Thready pulses Respiratory: Tachypnea, clear lung sounds Abdominal: Painful on palpation Radiographs - mild gas distention in stomach; overall unremarkable EPOC: High: pO2: 56.9, K+: 5.1, AGapK: 28, Lactate: 16.02, BUN: 52, Creatinine: 2.7, Glucose: 160, Hct: 7; pCo2: 17.3, HCO3-act: 8, mTCO2: 8.2, pH: 7.275, BE(ecf): -18.8, Ca++: 0.87 CBC: RBC: 9.75 H; HGB: 24.5 H; HCT: 69.2 H Chem: BUN- 54.4 H; CRE- 2.2 H; IP- 11.7 H; TP- 9.2 H; ALB >6.0 H; GLOB\*\*\*; GLU- 160 H; TCHO- 427 H; ALT- 219 H; ALP >993 H; GGT- 195 H; TBIL- 6.2 H Lepto - negative Ethylene Glycol - negative U/A - pH 6.5, calcium oxalate stones BP -

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 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.

Normal size and margination was 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. Right kidney pyelectasia noted, likely owing to IVF. The left kidney measured 7.0 cm in length. The right kidney measured 7.1 cm in length.

The area of the aortic trifurcation was free of pathology.

The residual prostate was free of pathology.

**Adrenal Glands**

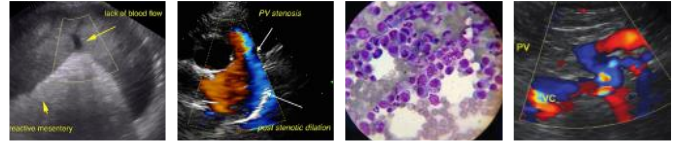
Both adrenal glands were mildly prominent in size with symmetrical capsule contour and homogeneous parenchyma. Minor potential for benign hyperplasia associated Cushing's syndrome possible if clinical history of PU/PD, polyphagia etc. No evidence of adrenal tumors.

The left adrenal gland measured 0.65 cm width at the caudal pole and 2.8 cm length. The right adrenal gland measured 0.95 cm width at the caudal pole and 2.6 cm length.

**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**



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The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a moderate coarse echotexture with evidence of minor remodeling. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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The gallbladder was non-distended in size with primarily anechoic luminal content and moderate dependent to nondependent mildly congealed hyperechoic luminal debris. The cystic and common bile ducts were normal.

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**Gastrointestinal**

The stomach exhibited marked distention with retained anechoic fluid. A mild amount of hyperechoic ingesta was present with no signs of ileus, obstruction or foreign material. The gastric body wall measured 0.47 cm in width.

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The intestinal walls demonstrated intact wall layering and maintained 1:3 muscularis / mucosa ratio. The mucosa exhibited mild decreased echogenicity with occasional mucosal speckling. A segmental to diffuse ileus pattern consisting of mild fluid accumulation in the intestinal lumen was present without obstruction or foreign material.

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The colon walls presented intact yet prominent wall layering with mild thickened to echogenic submucosa. Segmental non formed to liquid fecal matter 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**

No overt lymphadenopathy or peritoneal effusion was present.

Minor hyperechoic peri-intestinal omentum was present.

**IMAGING PERFORMED BY**

Erin Wicks

**ULTRASONOGRAPHIC FINDINGS**

**Primary**

- Acute gastroenteritis pattern with gastric hypomotility-suspected to be metabolic given lack of obstructive criteria
- Heterogeneous pancreas-patient/age related variant or remodeling owing to previous inflammation. Low grade to chronic pancreatitis possible
- Mild chronic renal changes
- Hepatopathy-subjectively benign, metabolic/reactive/vacuolar, inflammatory/immune mediated disease, cholestasis or other hepatopathy
- Moderate gallbladder debris (non-mucocele)
- Bilateral mild prominent adrenal glands

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No overt indication for immediate surgical intervention given lack of obstructive criteria. Aggressive medical therapy for acute hemorrhagic diarrhea syndrome potentially secondary to dietary indiscretion as well as possible low-grade pancreatitis is recommended. Reassessment of renal parameters is suggested once patient is stable and rehydrated. Assuming normal clotting status hepatic FNA for

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screening cytology could be considered for further assessment. Recheck sonogram if persistent/progressive GI signs despite empirical therapy.

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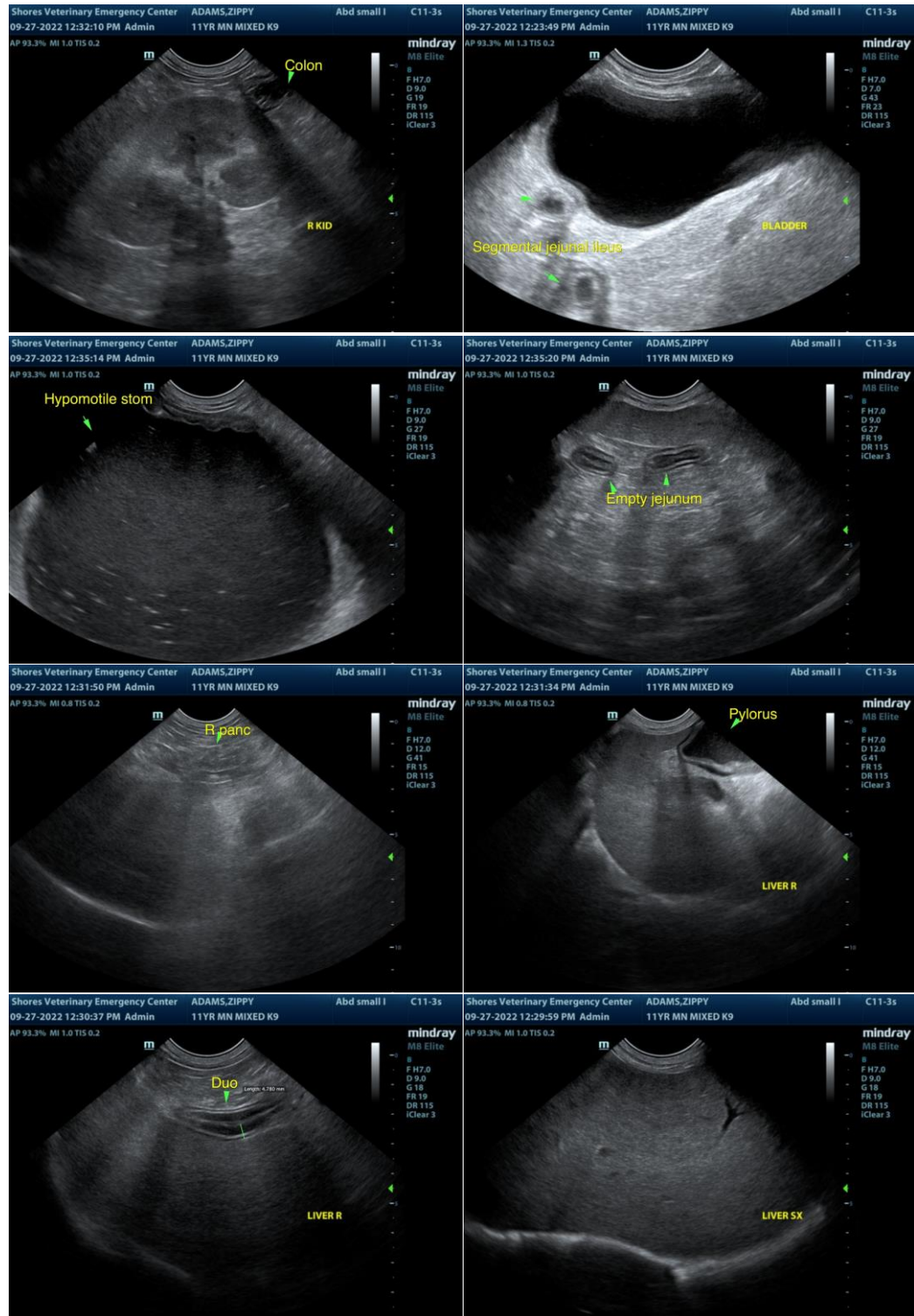
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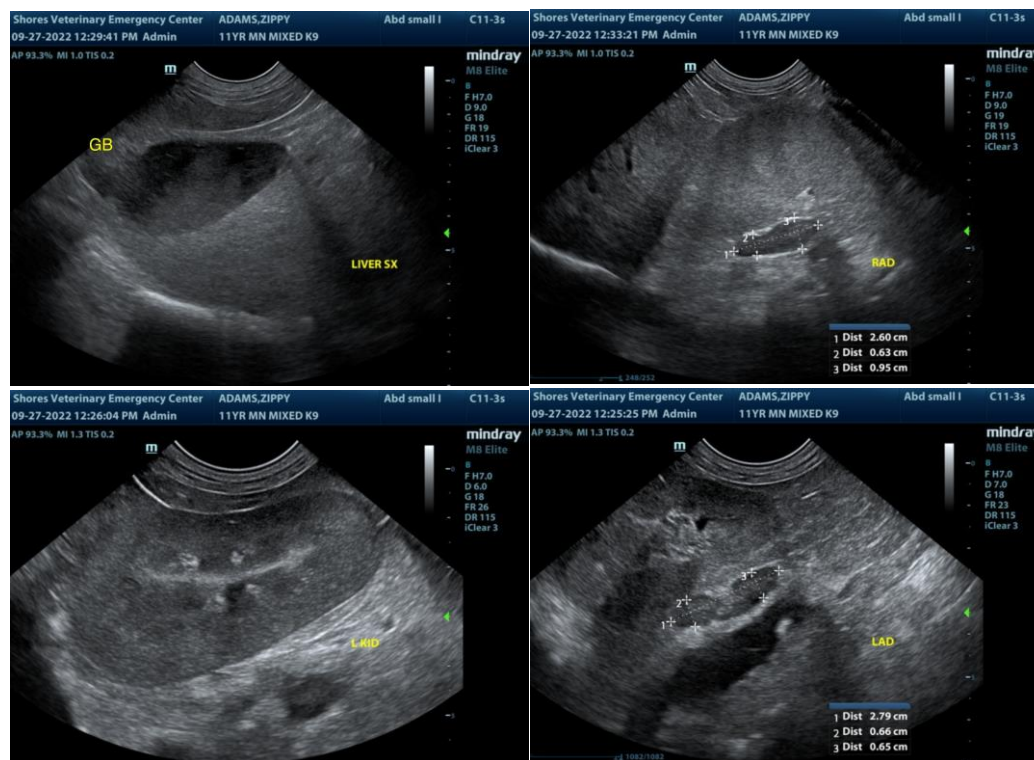
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com