



**PATIENT**

Auto Barth

**SPECIES**

Canine

**BREED**

Heeler

**SEX**

MN

**AGE**

6 years

**WEIGHT**

27.5 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sara Hansen

**HOSPITAL NAME**

VCA Salem Animal  
Hospital

**REFERRING VET**

Dr Giambuzzi

**INVOICE**

15025

**DATE**

9/29/22

**PRESENTING CLINICAL SIGNS**

Vomiting frequently after eating Drooling DKA

Abnormal PE/Chem/CBC/UA Results: Elevated GLU, ALB, ALKP, CHOL, AMYL, LIPA Lowered PHOS,  
K Current Medications Cerenia 1.2ml IV; Entyce 1.25ml PO

**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. Primarily anechoic urine was present in the lumen. Primarily dependent to mildly non-dependent, nonmineralized sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were 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. Mild, variably echogenic, cortex was noted with no evidence of pyelectasia. The left kidney measured 6.0 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 1.8 cm length x 0.62 cm width at the caudal pole. The right adrenal gland was indistinctly visualized yet without overt pathology subjectively measuring 0.60 cm width at the caudal pole. No evidence of adrenomegaly or tumors 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 presented moderately enlarged in size with generalized uniform hyperechoic parenchyma compared to the spleen and falciform fat. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical to rounded in contour. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size containing mild, non-dependent, mildly echogenic gallbladder debris. No evidence of gallbladder or peripheral gallbladder inflammatory criteria was noted. The cystic and common bile ducts were normal.



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***Gastrointestinal***

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The stomach presented intact and sonographically unremarkable wall layering. The stomach was moderate to markedly distended with retained primarily anechoic fluid along with minor, nonshadowing chyme in the area of the antrum and pylorus. No evidence of mechanical pyloric outflow obstruction, foreign material, or pyloric mural pathology was noted.

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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 small intestinal mechanical / metabolic ileus, obstruction, or foreign material.

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

***Pancreas***

The parenchyma of the pancreas was nonhomogeneous, mildly hyperechoic with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia. Minor pancreatic duct dilation was noted.

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

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**ULTRASONOGRAPHIC FINDINGS**

- Urinary bladder sediment, potential pyuria
- Sonographically unremarkable bilateral kidneys exhibiting minor variably echogenic cortex
- Hepatomegaly exhibiting uniform parenchyma hyperechogenicity - metabolic, reactive, vacuolar, (diabetic), hepatopathy suspected, potential for lipidosis, inflammatory hepatopathy or less likely occult neoplasia
- Mild gallbladder debris (non-mucocele)
- Hypomotile stomach, sonographically unremarkable small bowel - consistent with metabolic gastric hypomotility
- Chronic pancreatitis pattern

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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No evidence of mechanical gastric or gastrointestinal obstruction with significant probable metabolic gastric hypomotility secondary to underlying metabolic disease, mild gastrointestinal inflammation, or chronic pancreatitis.

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Hospitalization with DKA therapy, as-needed GI support and assessment of clinical response with potential sonographic reassessment, if clinically indicated, is recommended. Urine culture and



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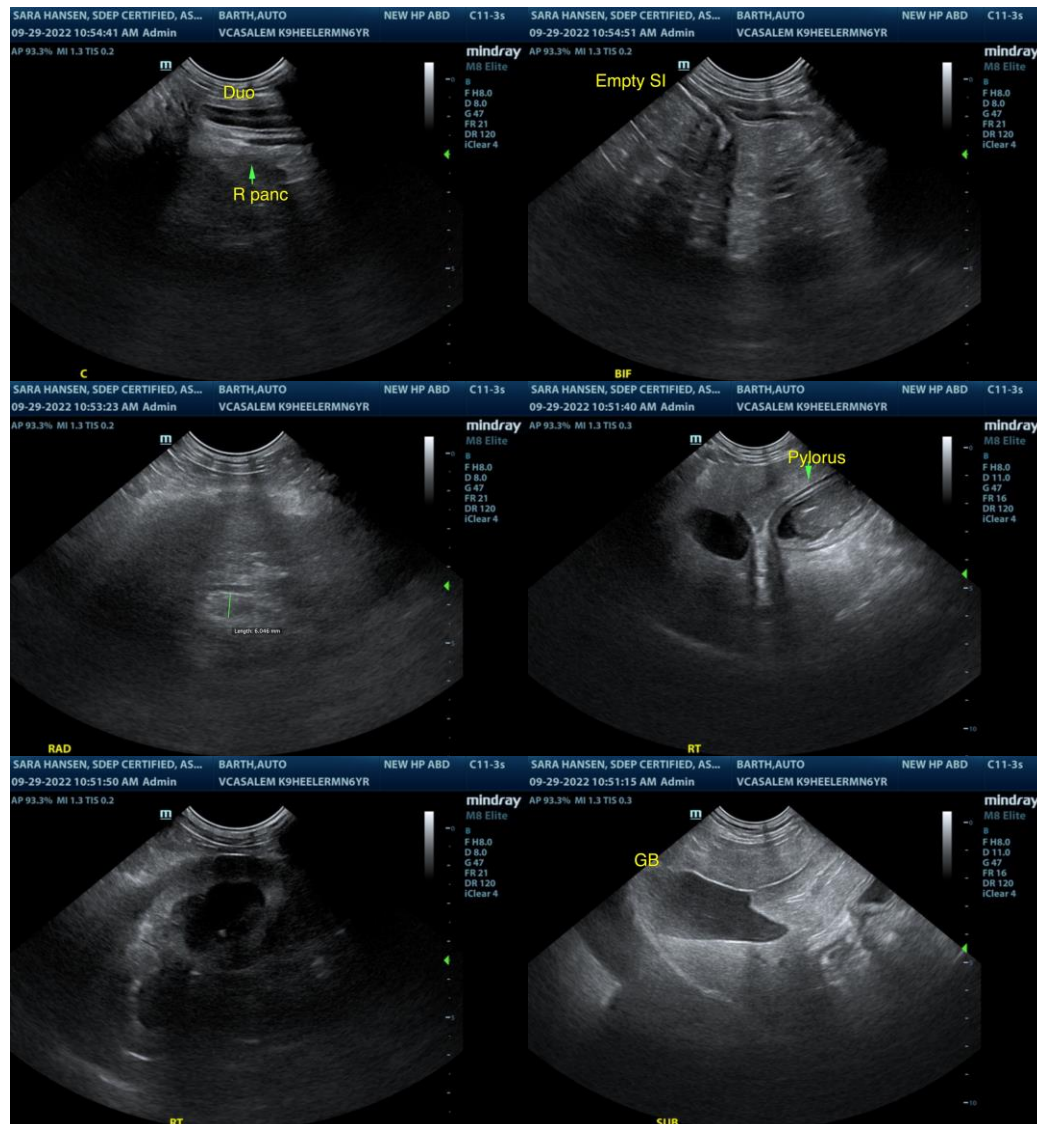
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sensitivity on a sterile urine sample is suggested if not done, given the likelihood of glucose urea and potential for pyuria.

For an additional charge, internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>





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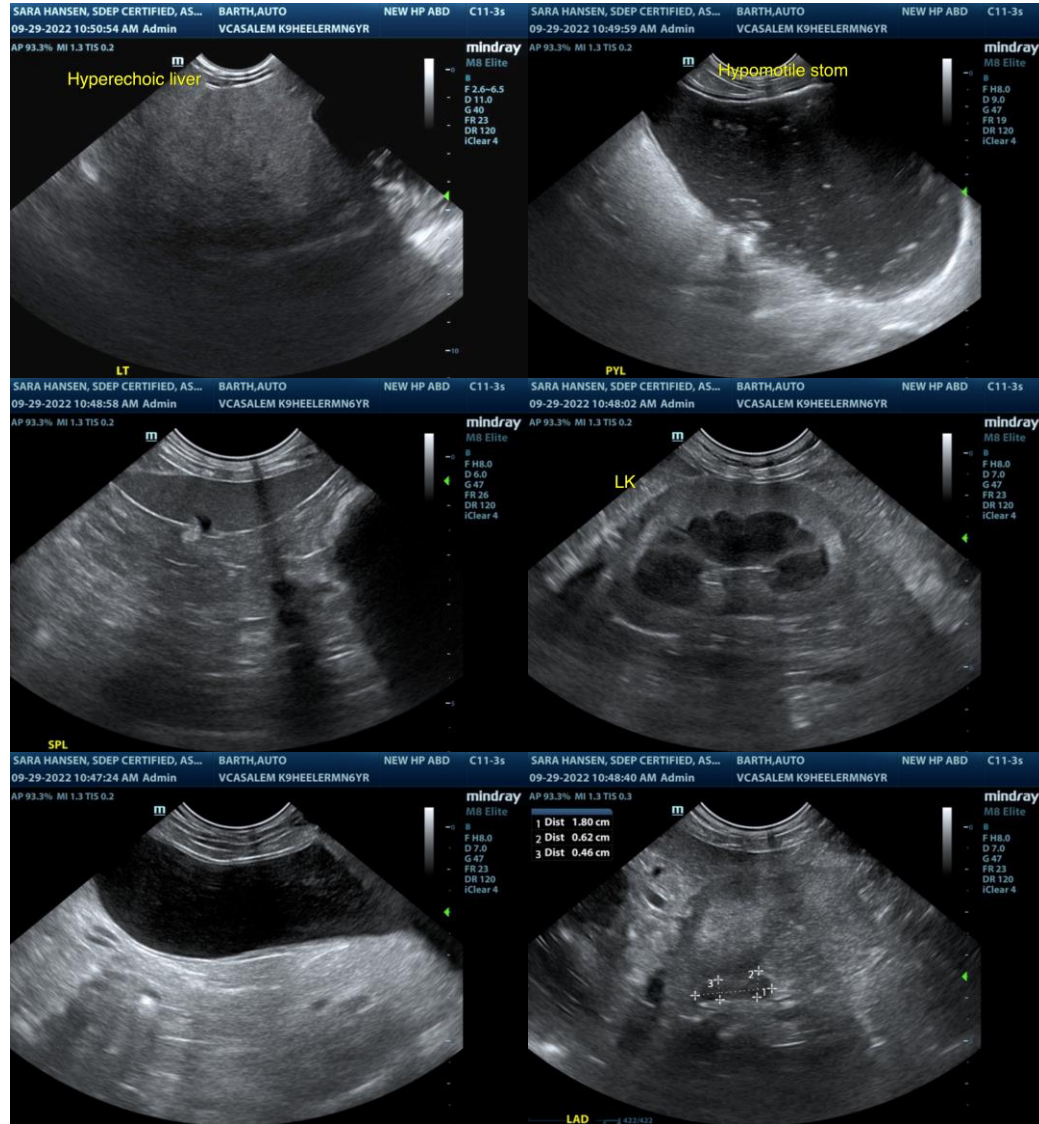
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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