



PATIENT

Harley Kelley

SPECIES

Canine

BREED

Pomeranian

SEX

MN

AGE

3 years

WEIGHT

5 lbs.

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Alex Emerson DVM

HOSPITAL NAME

Animal Clinic of
Casselberry

REFERRING VET

Alex Emerson DVM

INVOICE

12922

DATE

12/29/21

PRESENTING CLINICAL SIGNS

Chronic V/ Regurg since a puppy. Improved recently with Z/D. BW Nov 2021 : ALP 268 otherwise normal . After one month of ursodiol SID, ALP 221. US for cholestasis/ gastric outflow concerns Barium study next

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths, sediment, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

No pathology associated with the residual prostate was noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A maintained 1:3 cortex / medulla ratio and adequate corticomedullary border demarcation was noted. Pinpoint areas of medullary mineral were present in both kidneys. No evidence of pyelectasia was noted. The left kidney measured 2.7 cm in length. The right kidney measured 2.7 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 0.27 cm width at the caudal pole and 0.29 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 0.35 cm width at the caudal pole and 0.35 cm width at the cranial pole.

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 was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was subtly distended in size. The gallbladder walls were sonographically unremarkable without overt evidence of inflammatory criteria. Moderate, mildly congealed yet nonorganized, nonmineralized gallbladder debris was present primarily in the mid to caudal lumen and gallbladder neck, along with nondependent subjectively mobile debris present in the mid to cranial lumen. The cystic and common bile ducts were normal. No evidence of peripheral gallbladder inflammation was noted.



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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material. The gastric body wall width measured 0.3 cm. The pylorus wall width measured 0.27 cm.

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 0.33 cm. The jejunum wall width measured 0.27 cm.

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

Pancreas

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 were evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Low-grade hepatopathy - subjectively benign
- Moderate nondependent yet nonorganized gallbladder debris
- Sonographically unremarkable gastrointestinal tract

Secondary Findings

- Bilateral pinpoint renal medullary mineral

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The presence of gallbladder debris may be secondary to fasting, although likely suggestive of some degree of nonobstructive cholestasis. The gallbladder debris may also be associated with potential low-grade hepatobiliary inflammation such as cholangiohepatitis.

Assuming normal clotting status, ultrasound-guided FNA of the liver using a 25-gauge needle could be considered for screening cytology, as well as assessment for potential inflammatory cells if present. Empirically, hepatosupportive medications including Denamarin and continued Ursodiol with monitoring of hepatic enzymes would be appropriate. No evidence of a portosystemic vascular anomaly was noted.

Likewise, no overt evidence of gastric outflow obstruction or obvious delayed gastric emptying was present. Dietary intolerance / food hypersensitivity, given the recent improvement with ZD, or structurally insignificant inflammatory gastroenteropathy may be possible.



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Pending continued clinical response hydrolyzed diet, some or all of the following protocol may also be considered empirically. Three view chest radiographs are suggested to rule out occult thoracic or esophageal pathology if not done.

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A clinical trial of **Zithromax (Dogs: 5-10 mg/kg p.o. q24h. May increase dosing interval to q48h after 3-5 days of treatment), Metronidazole (10-20 mg/kg p.o. b.i.d.), Pepcid (0.5-1 mg/kg s.i.d.) and Sucralfate (0.5-2 g/dog PO) or Omeprazole (1 mg/kg p.o. s.i.d.)** over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided over the next 4 weeks. A recheck sonogram to assess GI improvement or progression would be ideal in 4 weeks.

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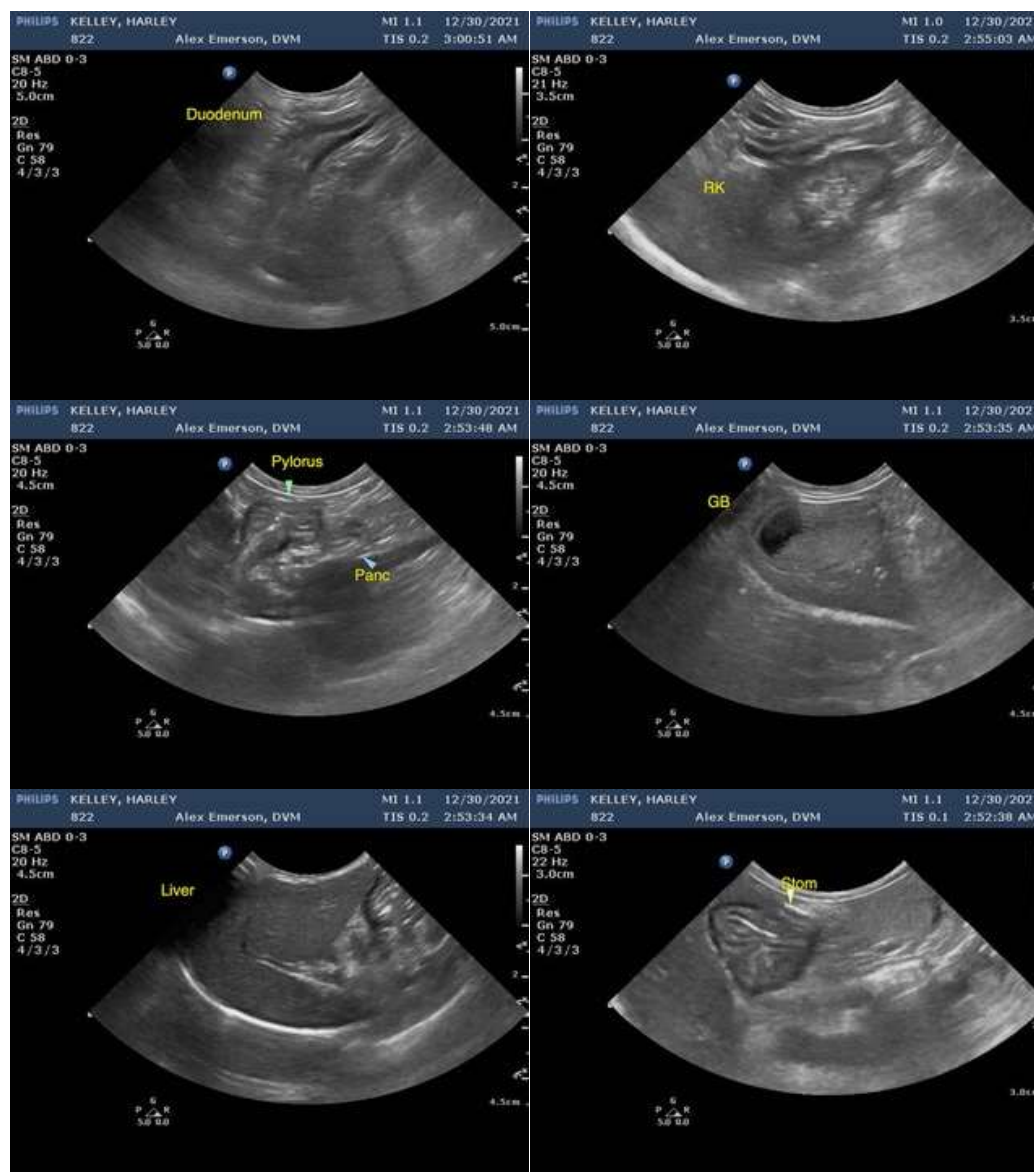
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com