

**PATIENT PRESENTING CLINICAL SIGNS**

Chloe Kameda Not eating well on Feb 18th, seems painful, no vomiting or diarrhea, normal BM. On Feb 25th seems much better on pain medication but once off, will relapse. Gabapentin.  
Abnormal PE/Chem/CBC/UA Results: CBC - WNL, ALT (172), ALP (543), Lipase (2367), Urine specific gravity - 1.015, pH 9.0 Rads showed IVDD and arthritis with degenerative joint disease in hips. Mildly enlarged liver.

**SPECIES**

Canine

**BREED**

Shep X Retriever

**SEX**

Spayed Female

**AGE**

7 Years

**WEIGHT**

26.8 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

BPH Burlington

**REFERRING VET**

Dr. Ruggieri

**INVOICE**

35790

**DATE**

3/1/22

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4.0 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.

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 corticomodullary 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 pelvic dilation. The left kidney measured 4.7 cm. The right kidney measured 6.5 cm.

**Adrenal Glands**

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.1 cm length x 0.47 cm at the caudal pole. The right adrenal gland measured 1.9 cm length x 0.90 cm at the caudal 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**

The liver exhibited mild generalized enlargement. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with anechoic content primarily. Multiple small areas of mineralization to small, emerging choleliths present in the gallbladder. These were non-obstructive. The common bile duct was normal. No evidence of peripheral gallbladder inflammation.

**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 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.

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



**PATIENT** *Pancreas*

Chloe Kameda The pancreas was normal in size and contour with isoechoic to mildly heterogeneous parenchyma compared to adjacent non-reactive omentum.

**SPECIES** *Free Abdomen*

Canine No overt lymphadenopathy or peritoneal effusion was present.

**BREED**

Shep X Retriever

- Hepatopathy – subjectively benign.
- Mild gallbladder mineral, potential emerging non-obstructive cholelithiasis.
- Subtle heterogeneous pancreas
- Overtly normal gastrointestinal tract

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**ULTRASONOGRAPHIC FINDINGS**

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The overall liver as non-specific, yet consistent with benign, potentially chronic hepatopathy. Considerations may include vacuolar hepatopathy and non-clinical cholestasis, given the ALP elevation, with potential for primary or concurrent inflammatory hepatopathy or hepatobiliary disease, given the ALT elevation and presence of minor gallbladder mineral/cholelithiasis. If normal clotting status, hepatic FNA could be considered for screening cytology, primarily to assess for and potentially identify inflammatory cell type if present.

Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial. Potential for resolving to low-grade pancreatitis or gastroenteritis, given the patient's clinical signs. Discomfort or pain associated with the gallbladder or pancreas is questionable. Assessment for possible referred abdominal pain such as musculoskeletal pain could be considered. Empirically, continued as needed gastrointestinal support and therapy for possible low-grade pancreatitis would be appropriate.

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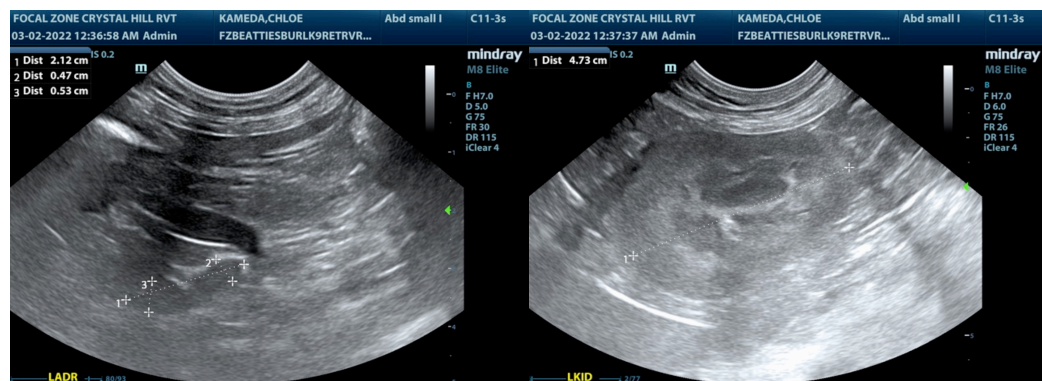
Dr. Ruggieri

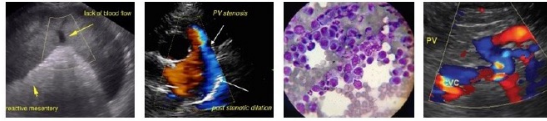
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**PATIENT**

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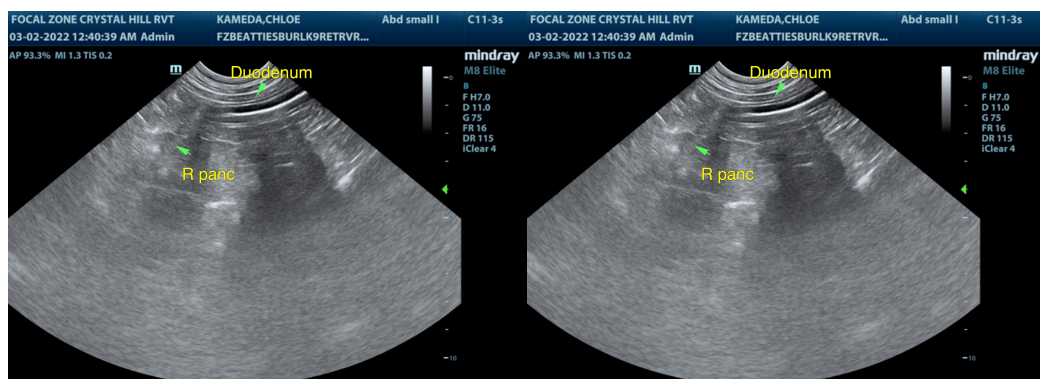
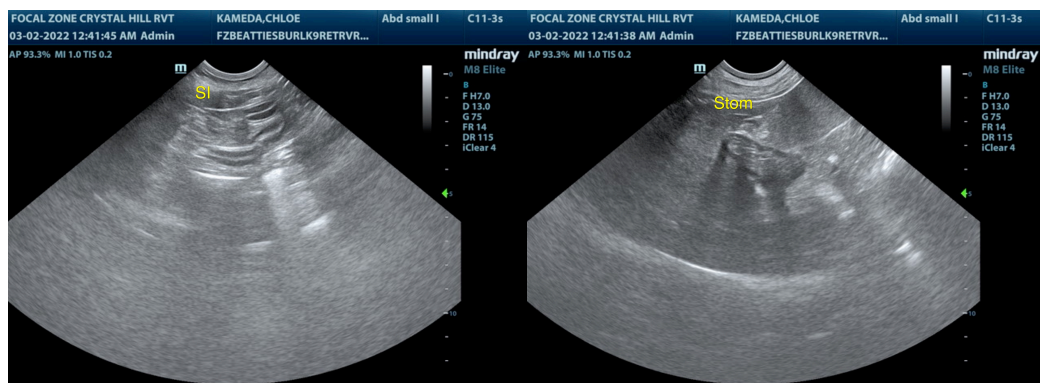
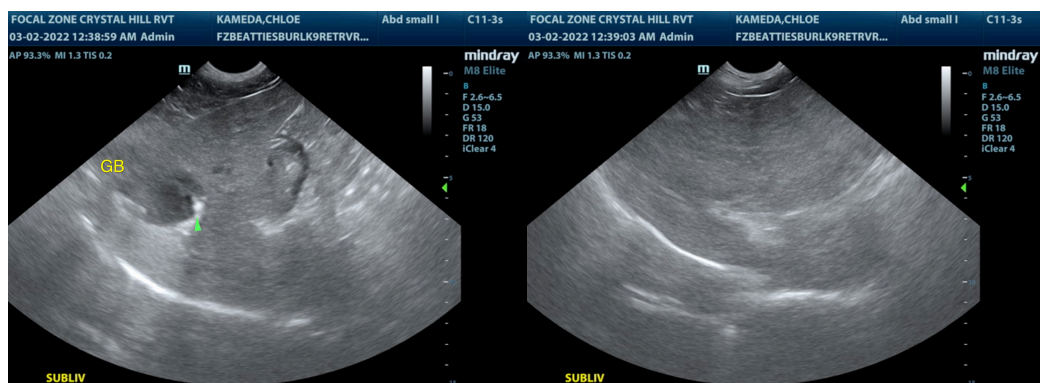
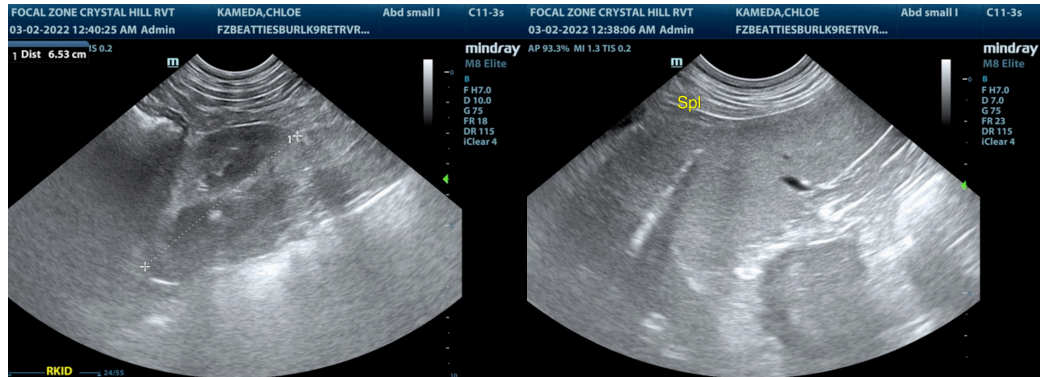
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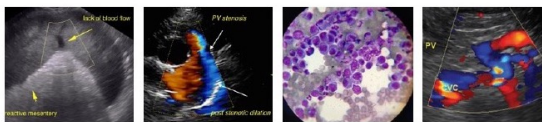
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**PATIENT**

Chloe Kameda

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.

**SPECIES**

Canine

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

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