



**PATIENT PRESENTING CLINICAL SIGNS**

**Wyoming Vulpe** History: 2-week history of inappetence and vomiting - dx pancreatitis, elevated liver values. Was hospitalized at emerg through the weekend on IVF, pain meds, metronidazole, liver supplements etc.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Please see attached bloodwork from previous and most recent collections. Labs: ALT 1502, ALP 1811, AST 352, GGT 70, Total bilirubin 7.8, BUN 5.2, Creat 104, Precision PSL 821, WBC 10.8, Hematocrit 48

**Canine**

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Labrador Retriever** *Urinary System*

**SEX** The urinary bladder, trigone and cystourethral junction 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. No overt evidence of medial iliac or sublumbar lymphadenopathy.

**Spayed Female**

**AGE** Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary 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 5.6 cm in length. The right kidney measured 6.2 cm in length.

**12 Years**

**WEIGHT** *Adrenal Glands*

**63.4 Pounds** The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.9 cm x 0.41 cm caudal pole width.

**INTERPRETED BY** The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.8 cm x 0.77 cm caudal pole width.

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

*Spleen*

**IMAGING PERFORMED BY** The spleen was normal in size and contour. Normal splenic parenchyma echogenicity was present, exhibiting subtle generalized parenchyma heterogeneity. Focal to intermittent nondisruptive subtly hypoechoic splenic parenchymal nodules were present, an example measured 0.83 cm in diameter. Splenic vascularity was normal.

**Crystal Hill**

**HOSPITAL NAME**

Mountain AH

*Liver*

**REFERRING VET** The liver exhibited potential for mild enlargement. Decreased hepatic parenchymal echogenicity with moderate coarse echotexture and minor increased prominent of portal vascular borders were present. Mild areas of hepatic capsule asymmetry were noted. No distinct hepatic masses or nodules were noted. The hepatic and portal vasculature were normal in appearance.

**Dr. Mackenzie**

**INVOICE** The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**14879** *Gastrointestinal*

**DATE** The stomach presented intact yet mild prominent wall layering. The lumen of the stomach was empty with no signs of retained ingesta, fluid or foreign material. Mild luminal gas was present.

**4/26/22**



**PATIENT**

Wyoming Vulpe

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.

**SPECIES**

Canine

***Pancreas***

The left limb, right limb, and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.

**BREED**

Labrador Retriever

***Free Abdomen***

Intermittent, mid abdominal mildly prominent to hypoechoic mesenteric lymph nodes, exhibiting borderline abnormal width to length ratio, approximately 0.5 and with evidence of mild perilymphatic reactive mesentery. An example of mesenteric lymph node measured 2.0 cm x 1.1 cm. A small pocket of scant free fluid was noted in the left lateral abdomen adjacent to the spleen.

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

63.4 Pounds

**ULTRASONOGRAPHIC FINDINGS**

- Hepatopathy- subjectively acute/subacute
- Focal to intermittent nondisruptive subtly hypoechoic splenic nodules
- Low-grade pancreatitis
- Mid abdominal mildly prominent to hypoechoic mesenteric lymphadenopathy with associated mild perilymphatic reactive mesentery
- Scant peritoneal free fluid

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Potential considerations for the liver may include acute to subacute hepatitis (viral, bacterial, leptospirosis, toxin etc.), vacuolar/reactive hepatopathy or occult neoplasia. Potential for structurally insignificant gastroenteritis with associated mesenteric lymphoid hyperplasia, reactive lymphadenitis, while the possibility of emerging neoplastic mid abdominal mesenteric lymphadenopathy cannot be excluded. The lymph nodes appeared to be inaccessible to ultrasound guided FNA. However, further assessment of the liver may include ultrasound guided hepatic FNA, assuming normal clotting status +/- leptospirosis titers/PCR, if endemic to the area or potential exposure.

**IMAGING PERFORMED BY**

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Continued empirical therapy for acute hepatitis and low-grade pancreatitis, which may include IV fluids, hepatosupportive medications, gastric protectants, as well as empirical antibiotics effective against acute hepatitis is recommended.

**REFERRING VET**

Dr. Mackenzie

Recheck sonogram suggested to assess for progressive hepatic or lymphatic changes if clinical signs persist.

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**SPECIES**

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**BREED**

Labrador Retriever

**SEX**

Spayed Female

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**REFERRING VET**

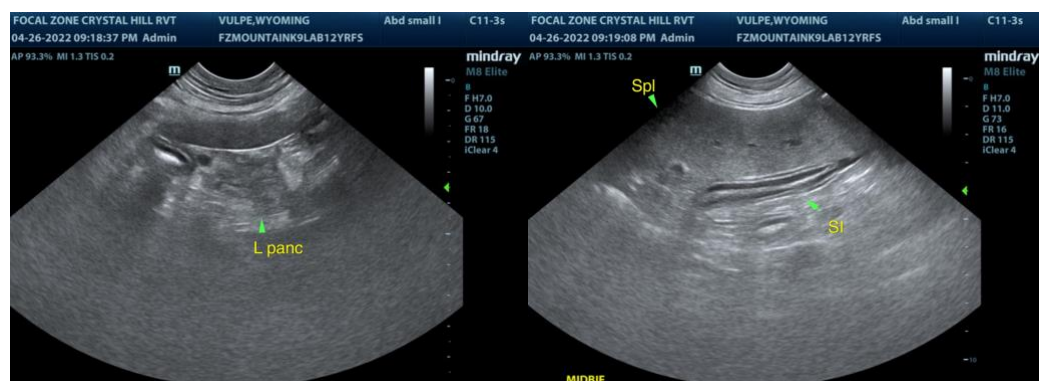
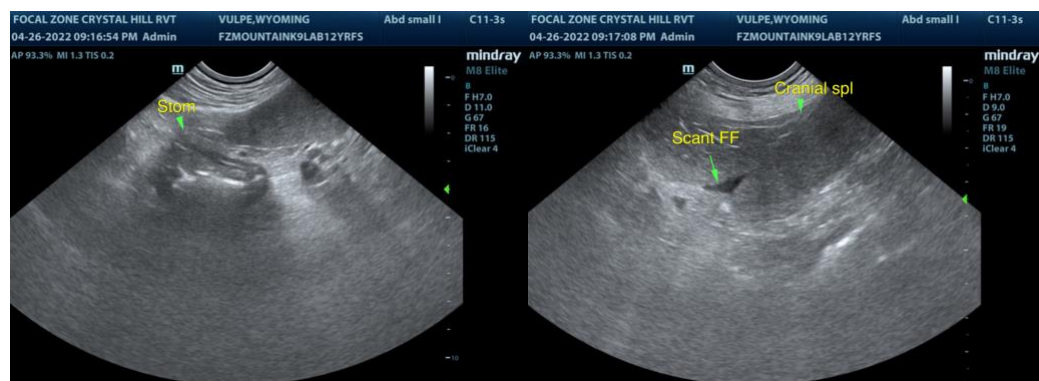
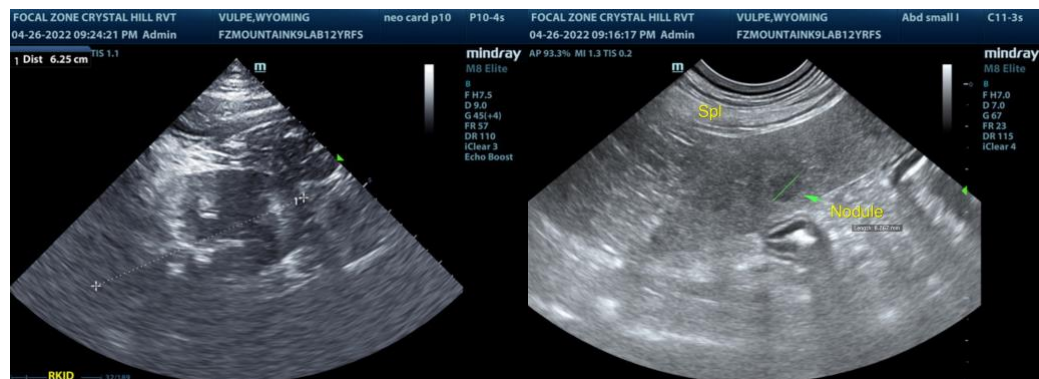
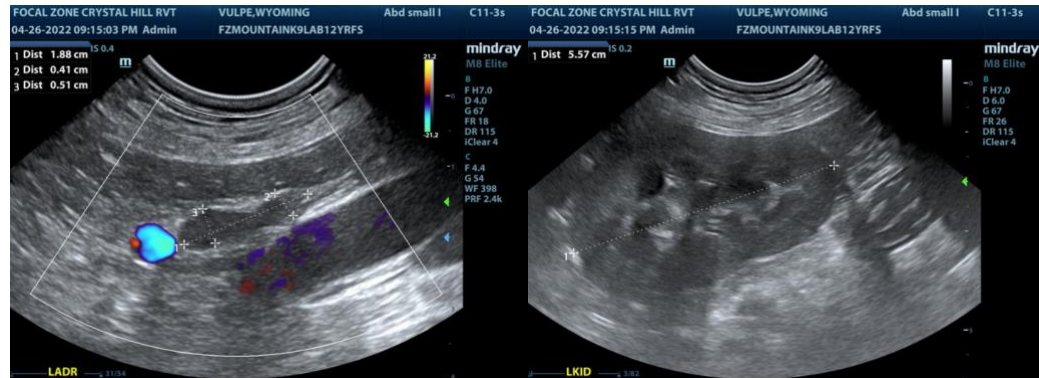
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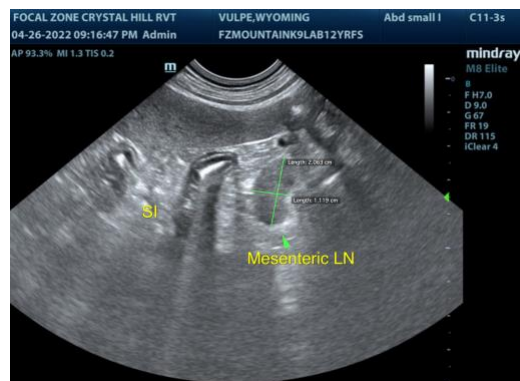
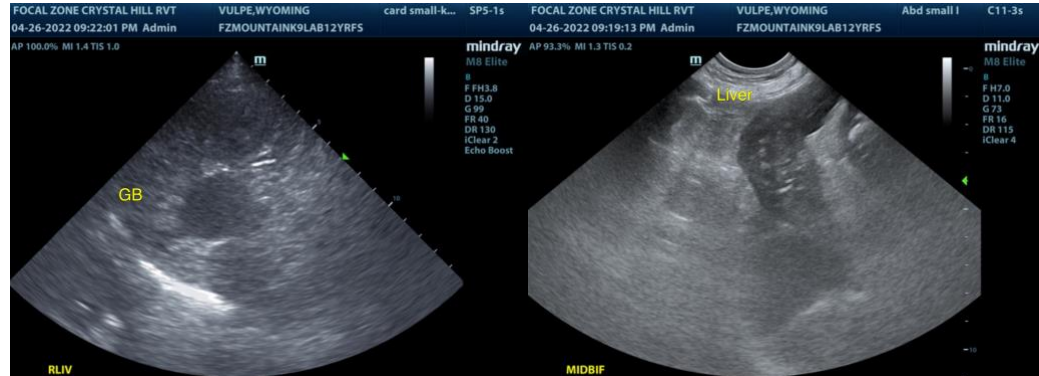
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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