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Clinical Sonography & Telecytology
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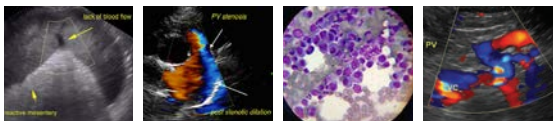

ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT
Sansa Hayden

SPECIES
Canine

BREED
German Shepherd

SEX
Spayed Female

AGE
10 Years

WEIGHT
73 Pounds

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

IMAGING PERFORMED BY
Jenna Walsh, CVT

HOSPITAL NAME
The Ark Vet Clinic

REFERRING VET
Dr. Sangl

INVOICE
46965

DATE
4/26/23

PRESENTING CLINICAL SIGNS

Elevated Liver Enzymes Current Medications Denamarin Tablets 425mg, Niacinamide 500mg tabs
Abnormal PE/Chem/CBC/UA Results: Mild ALT and AST elevations. (ALT 319 U/L, AST 71 U/L)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of – 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 were 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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present.

Adrenal Glands

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.71 cm at the cranial pole and 0.58 cm at the caudal pole. The right adrenal gland measured 0.91 cm at the cranial pole and 0.68 cm at the caudal pole.

Spleen

The spleen was mildly enlarged subjectively with maintained symmetrical capsule contour and generalized mild parenchyma heterogeneity. No splenic masses or nodules noted. Normal splenic vascularity.

Liver

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

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.

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 was evident.

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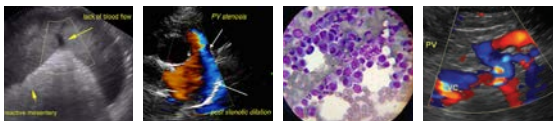

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Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

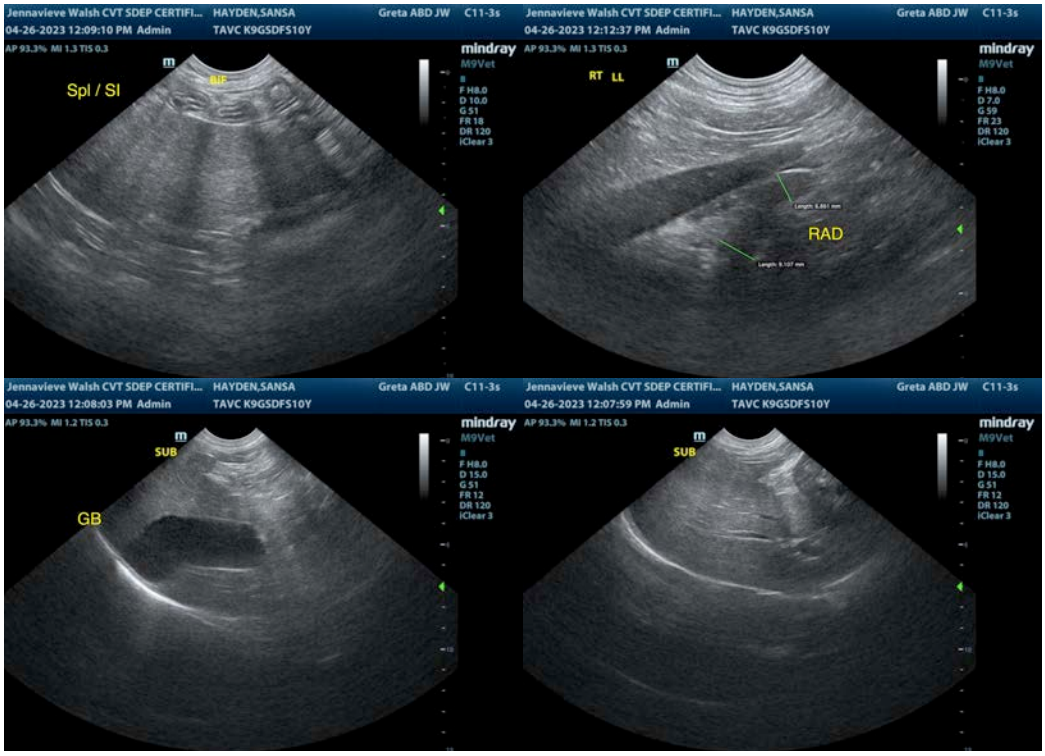
ULTRASONOGRAPHIC FINDINGS

- Benign hepatopathy
- Sonographically normal gallbladder
- Splenomegaly with mild parenchymal heterogeneity
- Mild age related kidneys

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver was non-specific, yet sonographically consistent with benign hepatopathy. Suspect mild non-specific inflammatory hepatopathy, given the ALT/AST elevation. Screening hepatic FNA cytology assuming normal clotting status warranted for further clarification and potential identification of inflammatory cell type, if present. Some contribution to the increased liver enzymes may possibly be secondary to Niacinamide. Empirically, possible temporary discontinuation of Niacinamide with continued hepatosupportive medications and assessment of hepatic enzymes may be beneficial.

The spleen, although non-specific, is suggestive of benign etiologies such as incidental hyperplasia, hematopoiesis, splenitis, or breed associated hypersplenism. Infiltrative splenic neoplastic criteria is thought less likely. Concurrent screening splenic FNA cytology using 25-gauge needle is warranted. Sonographic monitoring of the spleen for evidence of progressive enlargement or parenchymal changes would be a more conservative approach.



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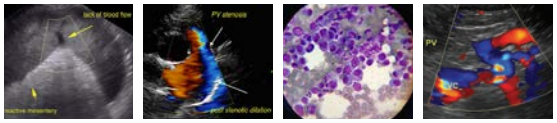

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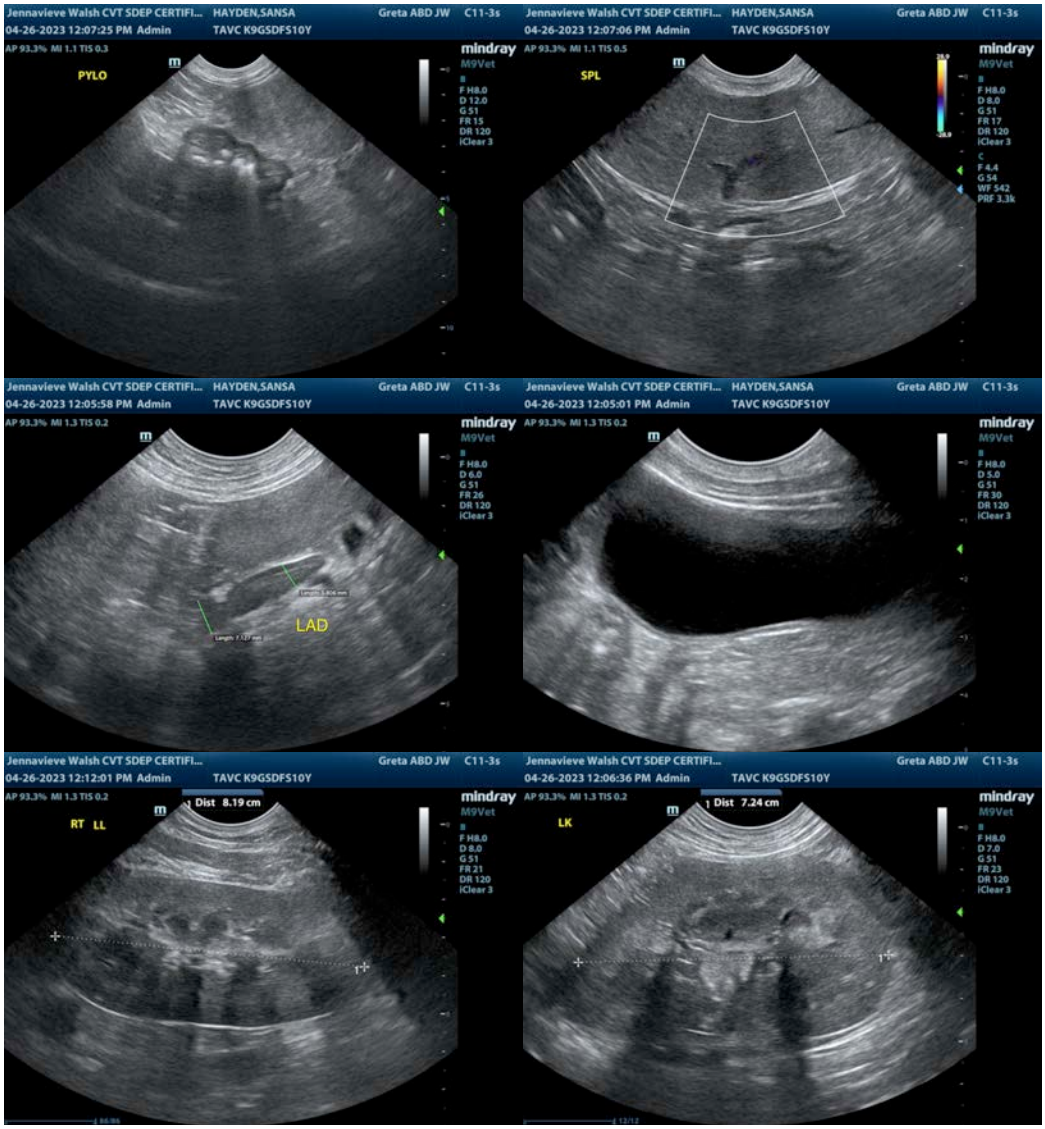

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

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