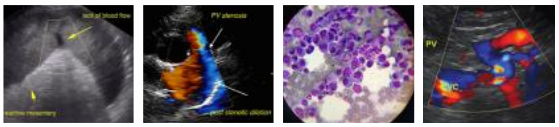


PATIENT

Mishka Hunt

SPECIES

Canine

BREED

Pomeranian

SEX

FI

AGE

4 months

WEIGHT

2.7 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

South Willamette VC

REFERRING VET

Dr. Shelton

INVOICE

16336

DATE

3/10/23

PRESENTING CLINICAL SIGNS

Intermittent diarrhea, inappetence, poor weight gain Current Medications Subq fluids at home, started on kidney diet Primary Question/Differential to Be Answered in This Exam Looking for cause of azotemia/ why creatinine was elevated.

Abnormal PE/Chem/CBC/UA Results: March 2, CBC mild reticulocytotic, mild neutropenia (2). Chem SDMA 22, BUN 30, creatinine could not be read 3 times requiring dilution, albumin 3.9, amylase mild increase. Giardia negative, fecal negative. UA obtained by Cysto, USG >1.040, pH 6.0, suspect hyaline cast, no bacteria March 10, CBC hematocrit 36, moderate neutropenia (1.76), WBC count 4.70. Chem creatinine still required a dilution however BUN was down to 8 and SDMA was down to 7.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder was normal in size and tone containing anechoic urine with no evidence of sediment, mineral, or calculi. No evidence of inflammatory criteria was noted. The urethra exhibited an overtly normal structure to a depth of 2.0 cm. No evidence of congenital abnormalities such as urachal remnant or evidence of ectopic ureter.

The area of the aortic trifurcation was free of pathology.

Adequate size and symmetrical renal margination were present in the kidneys. A maintained 1:3 cortex / medulla ratio was present with mild loss of cortical medullary border demarcation owing to increased medullary echogenicity including pinpoint medullary mineral. No pyelectasia was noted. No evidence of left or right retroperitoneal inflammation or effusion was noted. The left kidney measured 2.8 cm in length. The right kidney measured 3.1 cm in length.

Adrenal Glands

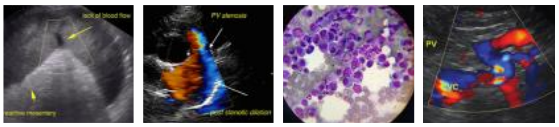
The bilateral adrenal glands were overtly normal in size, position, and shape. The left adrenal gland measured 0.26 cm width at the cranial pole and 0.23 cm at the caudal pole. The right adrenal gland measured 0.33 cm width at the caudal pole.

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/ 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. Subjective adequate to normal hepatic vascular



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volume was noted. The visualized cranial abdominal caudal vena cava appeared to exhibit normal volume and laminar flow. 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 fecal matter 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 evidence of omental lymphadenopathy was noted. An intermittent, very scant pocket of peritoneal free fluid was present, consistent with physiologic free fluid for age and incidental.

ULTRASONOGRAPHIC FINDINGS

- Sonographically unremarkable urinary bladder - no overt lower urinary tract congenital abnormality or mineral / calculi
- Subjective normal bilateral kidney size for age / breed with nonspecific increased medullary echogenicity and pinpoint medullary mineral
- Overtly normal liver exhibiting adequate vascular volume
- Sonographically unremarkable gastrointestinal tract

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The sonographic appearance of the kidneys in light of azotemia, yet adequately concentrated urine is nonspecific. The urine specific gravity (>1.040) suggests prerenal azotemia. Correlation with hydration status and assessment of water intake, as well as possible hydration protocol and reassessment of degree of azotemia, is suggested. Full urinary workup including screening C/S and baseline UPC is warranted. Assuming no evidence of underlying infection or history of acute kidney injury, some degree of renal dysplasia could be suspected if continued azotemia with concurrent inadequate urine concentration.

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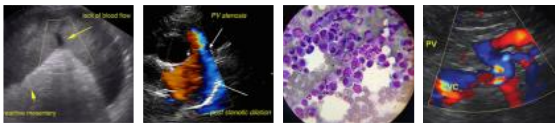

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MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

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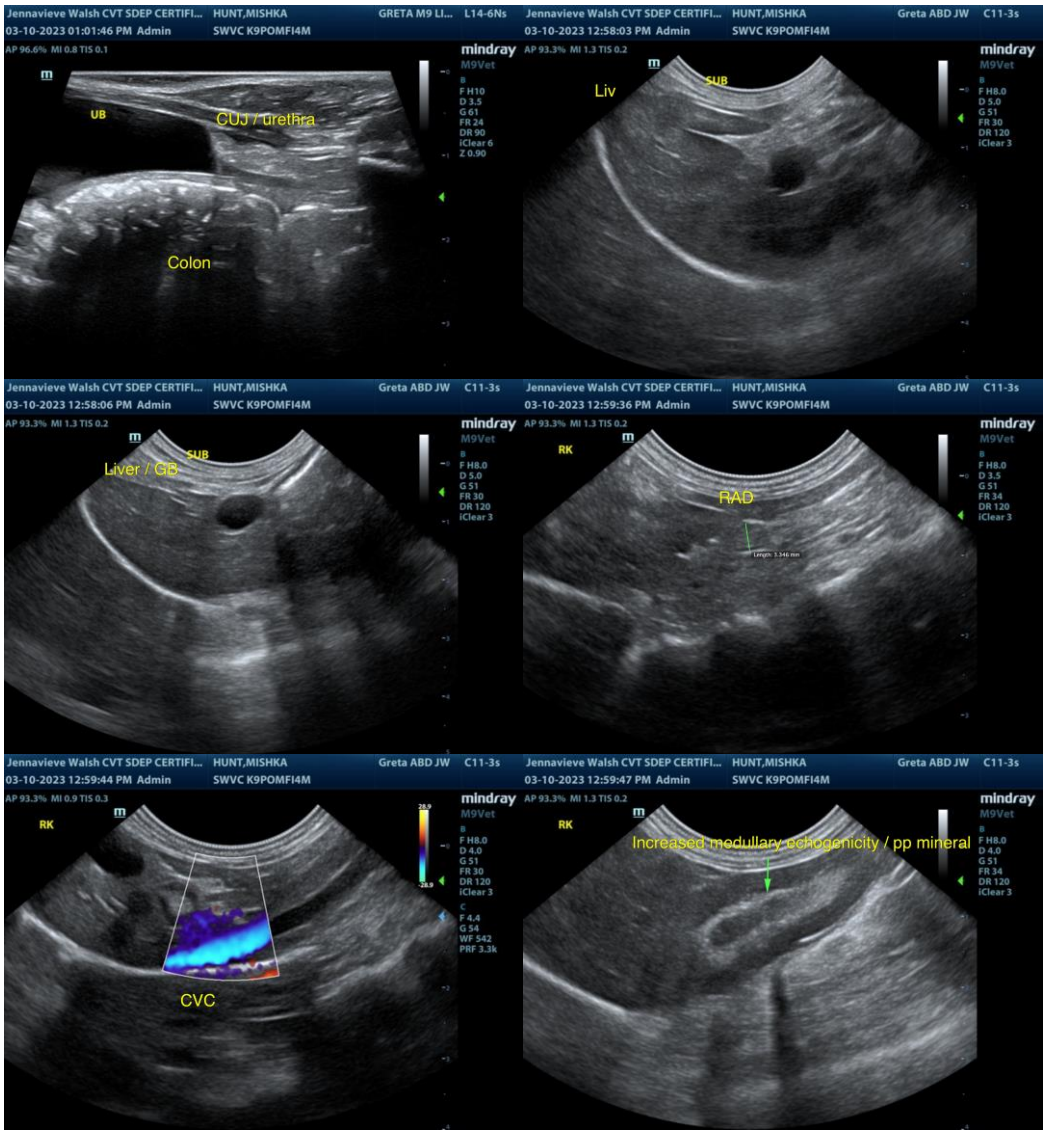
A GI panel to include PLI/TLI/Cobalamin/Folate, as well as a resting cortisol level to rule out occult Disease as a contributing factor to the patient's clinical signs, azotemia, and poor weight gain could be considered. Broad spectrum deworming is suggested even with negative fecal testing.

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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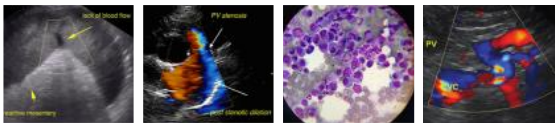

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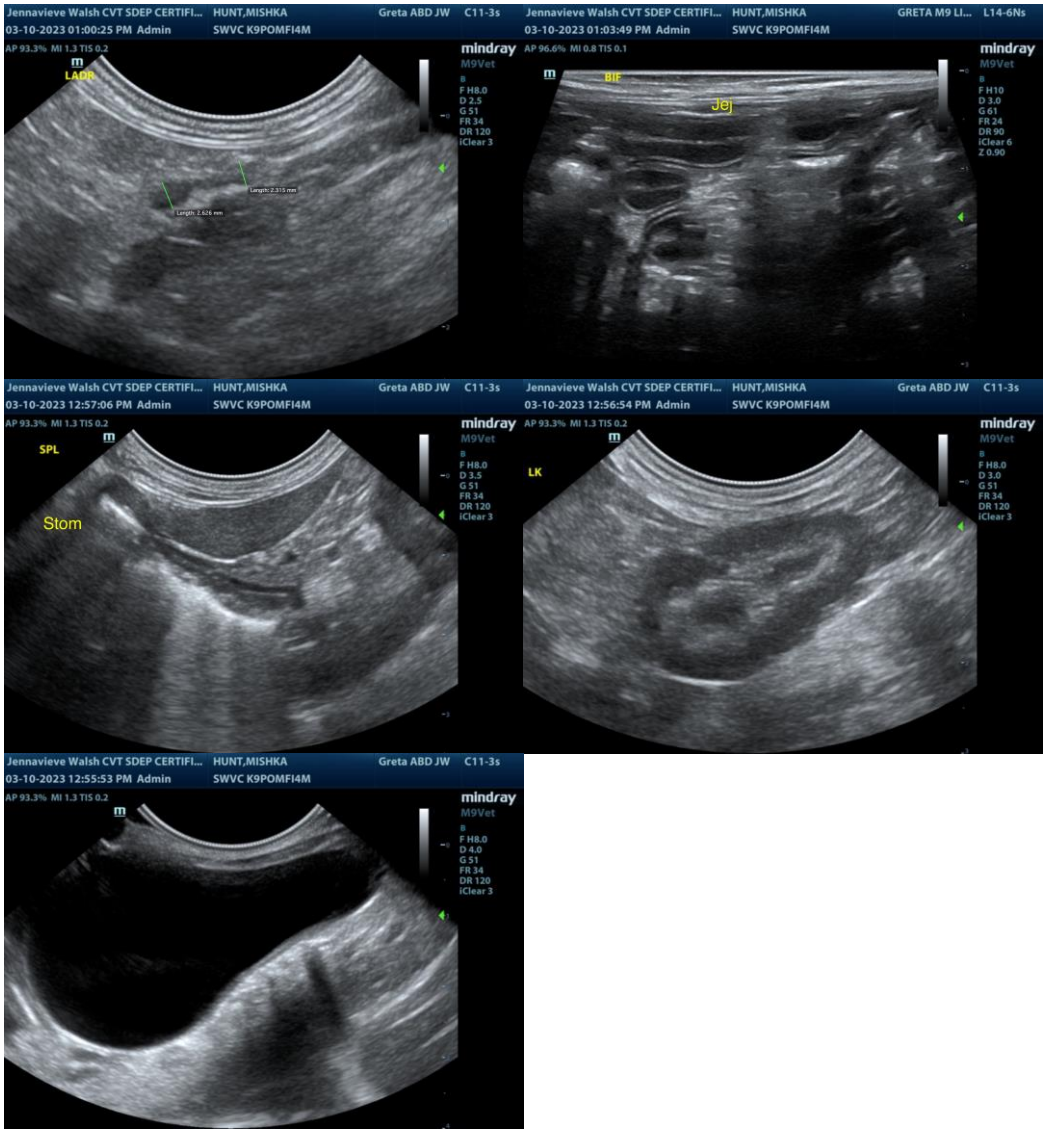

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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