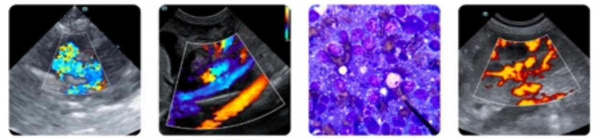


PATIENT
Minnie Vin

SPECIES
Canine

BREED
Pomeranian

SEX
Spayed female

AGE
15 years

WEIGHT
4.69 lbs

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Jazmin Munoz Gonzalez

HOSPITAL NAME
Oakridge VC

REFERRING VET
Dr. Nguyen

INVOICE
72007

DATE
2/26/26

PRESENTING CLINICAL SIGNS

- 15yo F spayed Pomeranian presenting for difficulty walking in the hind end and hematochezia. Bradycardic on physical exam. Hypotensive and 3rd degree AV block noted on ECG possibly due to severe dehydration vs. primary cardiac condition. Elevated kidney and liver values, UTI on bloodwork/urinalysis. Possible mineralization of liver vs. gallbladder on Rads.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Minor mineralization was noted in the kidneys. The left kidney measured 2.8 cm. The right kidney measured 2.5 cm.

Adrenal Glands

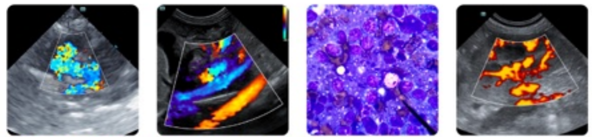
Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.6 cm. The right adrenal gland measured 0.7 cm.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

The **liver** revealed coarse architecture with increased portal markings and dilated hepatic veins. This is suggestive for passive congestion. The gallbladder was edematous with a minor polyp in the apex.



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Gastrointestinal

The stomach presented gastric wall thickness with excessive thickness with mucosal remodeling. The gastric wall measured 1.3 cm with an empty lumen. Variable small intestinal thickening was also noted. This is consistent with enteritis or inflammatory bowel. Enhanced mesentery was noted around the stomach and pancreas.

Pancreas

The **pancreas** revealed mixed hypoechoic parenchymal changes with hyperechoic surrounding fat. This is suggestive for active inflammation and remodeling.

Free Abdomen

A slight amount of ascites is noted.

ULTRASONOGRAPHIC FINDINGS

Passive congestion liver pattern

Slight amount of ascites.

Enhanced mesentery in the cranial abdomen owing to either pancreatic inflammation or enhancement owing to ascites.

Excessive gastric wall thickening.

Age related renal changes, moderate with mineralization.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hepatic vein dilation is likely owing to cardiac disease depending upon echocardiogram with focus on tricuspid insufficiency velocities to assess for potential, emerging right-sided heart failure.

Subxiphoid palpation is recommended to assess for pain in the region of the pancreas.

Treatment for gastroenteritis and management for parasites is indicated as well as a full echocardiogram. I recommend focusing on the heart as gastrointestinal hypoxia owing to heart disease may be playing a role in this patient given the passive congestion liver pattern.

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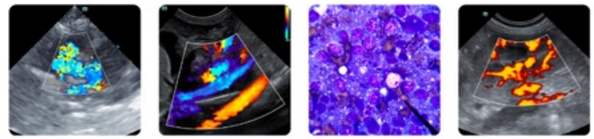

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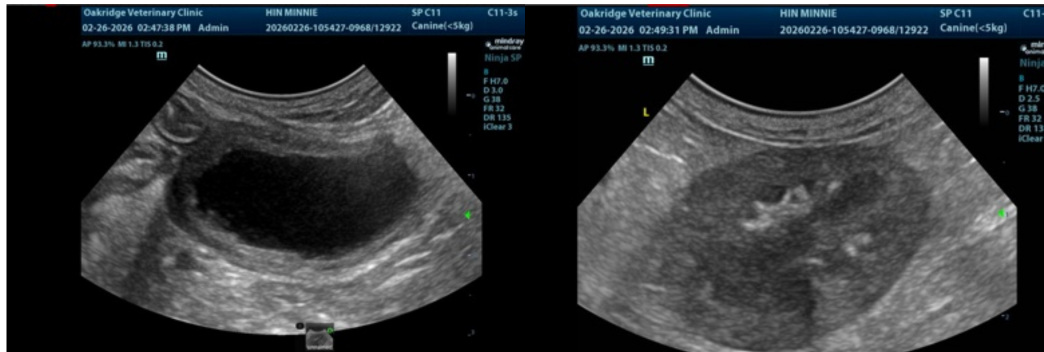

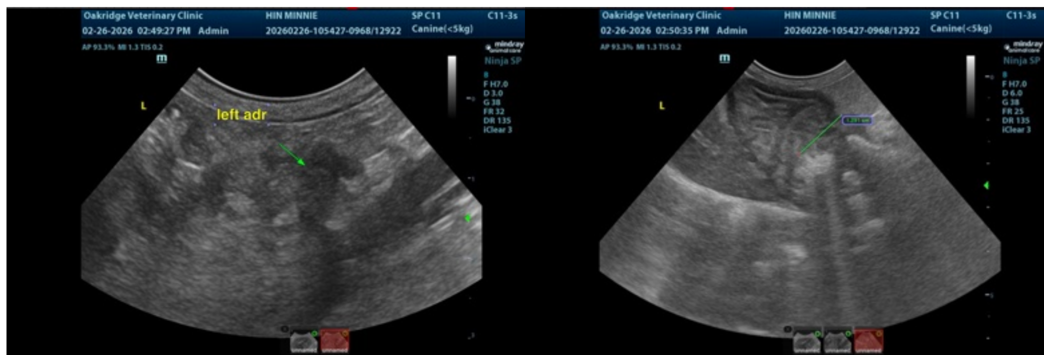

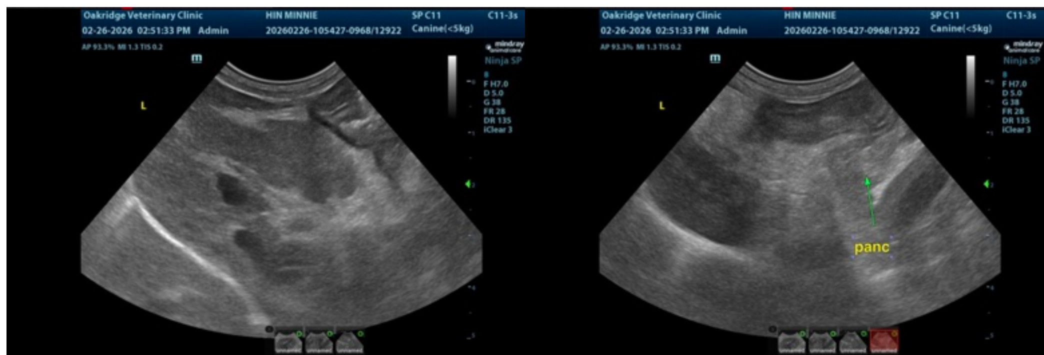

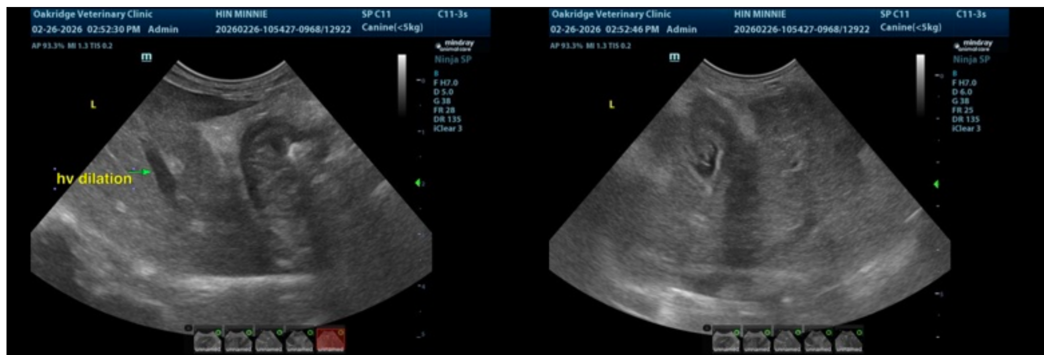

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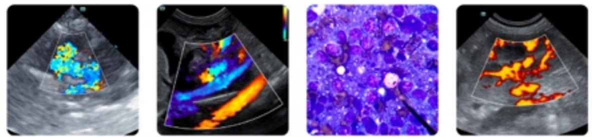

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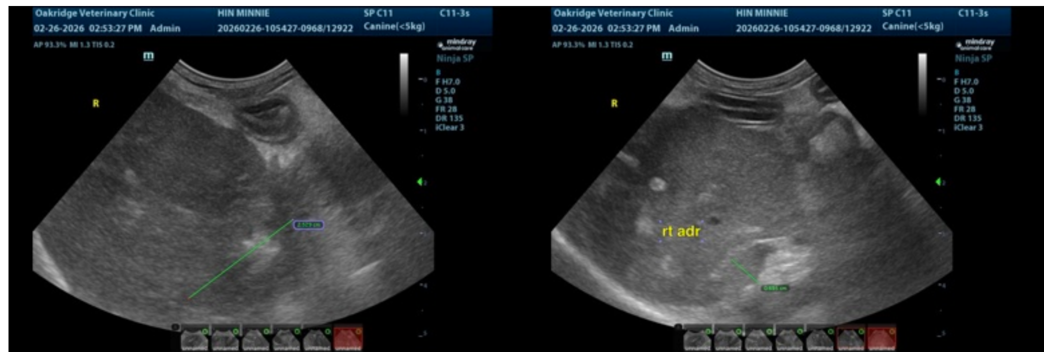

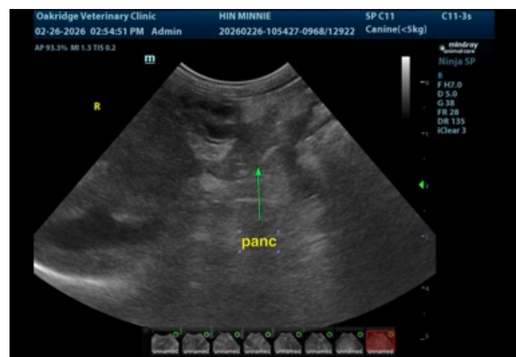

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com