



**PATIENT**

Blue Roseler

**SPECIES**

Canine

**BREED**

Siberian Husky Mix

**SEX**

MN

**AGE**

8 years

**WEIGHT**

45.1 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

VCA Westmoreland  
AH

**REFERRING VET**

Dr. Bugarvich

**INVOICE**

13503

**DATE**

3/16/22

**PRESENTING CLINICAL SIGNS**

coughing lethargy decreased appetite temp was 102.6 on 3/9 at Emergency clinic EVH noted respiratory was Eupneic Harsh lung sounds and crackles noted at Emergency clinic BCS 1/9 Current Medications Fluconazole,

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 was noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 1.2 cm in diameter.

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 was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.7 cm in length. The right kidney measured 6.2 cm in length.

**Adrenal Glands**

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present with indistinct to potentially emerging nodular changes noted. The left adrenal gland measured 3.0 cm length x 0.79 cm width in the caudal pole. The right adrenal gland measured 2.7 cm length x 1.0 cm width in the caudal pole.

**Spleen**

The spleen was normal in overall size and contour with generalized mild splenic parenchyma heterogeneity. Multiple, variably sized, subtly expansive, nonhomogeneously hypoechoic macronodules to small mid-splenic mass lesion was noted. An example of a mid-splenic macro-nodule to small mass measured 2.7 cm in diameter. An example of a smaller splenic nodule present in the cranial spleen measure 1.6 cm in diameter. Normal splenic vascularity was present.

**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. Moderate, inspissated yet nonorganized gallbladder debris was present. The gallbladder was otherwise normal without evidence of



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inflammatory wall changes or peripheral gallbladder inflammation. The cystic and common bile ducts were normal.

Transdiaphragmatic view revealed comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. Chest radiographs are recommended to rule out alveolar/lung disease such as neoplasia, thromboembolic disease, chronic inflammatory disease with microconsolidation.

**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 were evident.

**Free Abdomen**

No omental masses, lymphadenopathy or perisplenic / peritoneal effusion were present.

**ULTRASONOGRAPHIC FINDINGS**

- Multifocal, variably sized, subtly expansive, splenic macro-nodules to small mid-splenic mass lesion
- Transdiaphragmatic comet tail artifact
- Moderate inspissated gallbladder debris
- Bilateral chronic renal changes
- Subtle bilateral nodular adrenals

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

General considerations for the splenic macro-nodules to small mid-splenic mass lesion may include areas of lymphoid hyperplasia, hematopoiesis, splenitis, small hematomas, infection, or neoplasia. Given the pulmonary radiographic abnormalities in this patient, higher probability of splenic neoplasia is suspected. No other evidence of Intra-abdominal neoplasia as a potential cause of pulmonary metastasis was noted.



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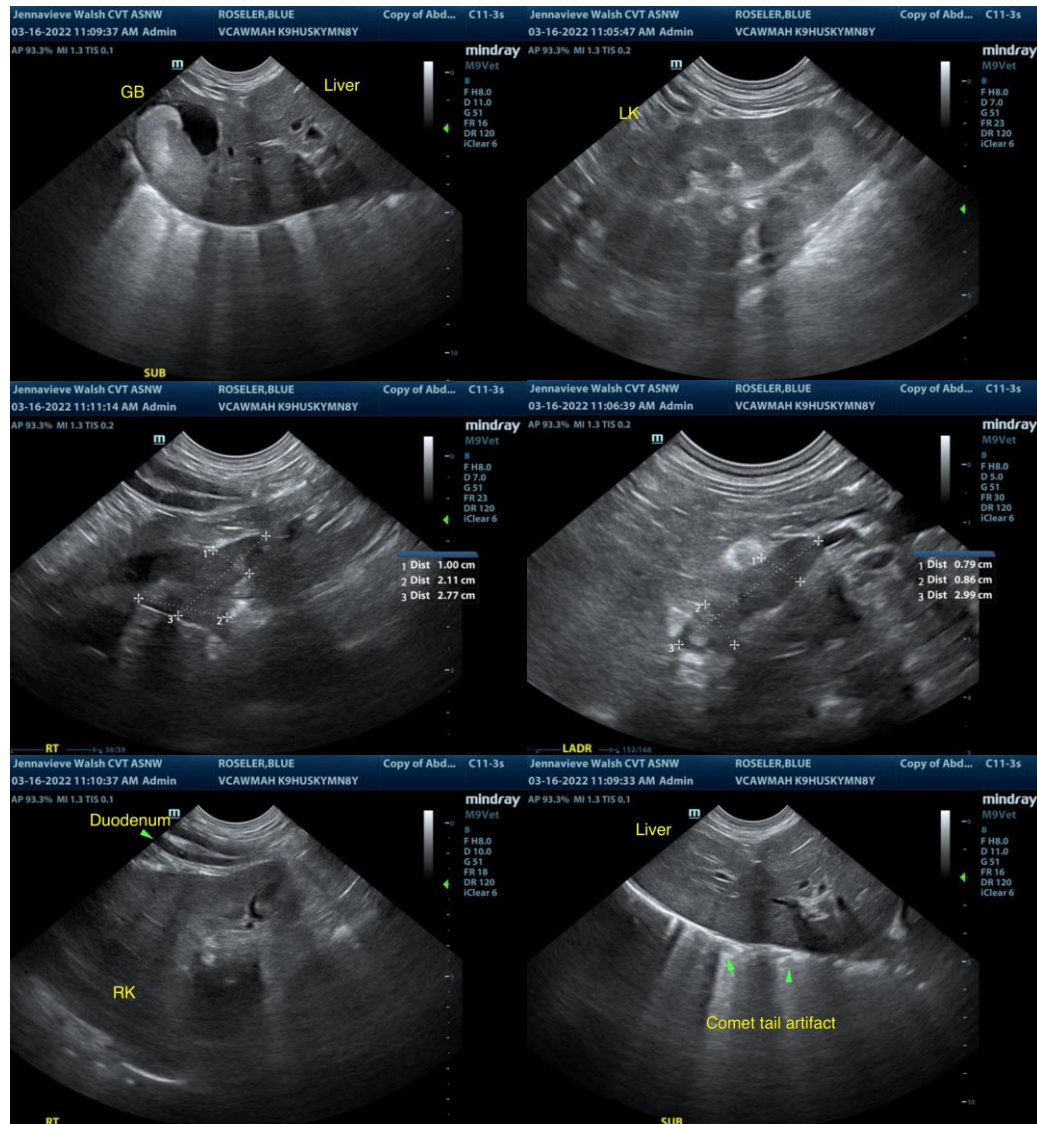
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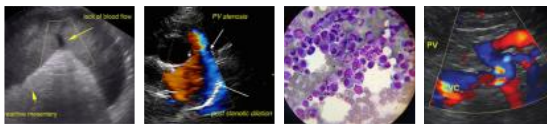
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Assuming normal clotting status, ultrasound-guided FNA of a splenic macro-nodule to small mass, using a 25-gauge needle, could be considered for further clarification. Pretreatment with Benadryl and appropriate sedation is recommended if splenic FNA is elected.

The indistinct mild nodular adrenal presentation may indicate adenomatous change, small lipogranulomas, or hyperplasia, while the possibility of emerging neoplasia such as pheochromocytoma, adenocarcinoma, or metastatic neoplasia, although thought less likely, cannot be definitively excluded. Screening blood pressure to assess for evidence of hypertension may be considered.





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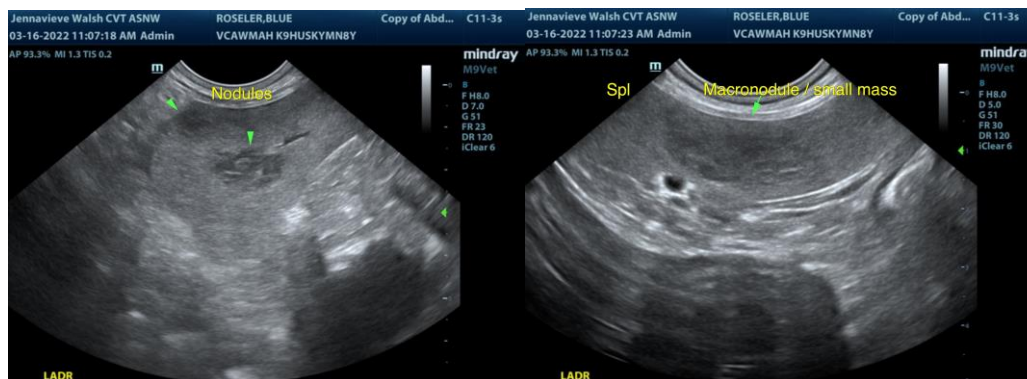
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**