



**PATIENT**

Burton Pendura

**SPECIES**

Canine

**BREED**

Min Schnauzer

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

6.3 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

Alpine 24-hour AH

**REFERRING VET**

Dr. Bruce

**INVOICE**

15025

**DATE**

5/3/22

**PRESENTING CLINICAL SIGNS**

History: Syncope episode 2 days ago now lethargic murmur 4/6 enlarged heart on chest x rays - attached hyperechoic mass in spleen on A FAST Ab 58 images Echo 68 images  
Abnormal PE/Chem/CBC/UA Results: Non diagnostic

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 were noted. Aortic trifurcation was normal.

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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.7 cm in length. The right kidney measured 4.5 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.46 cm width at the caudal pole and 0.43 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.44 cm width at the caudal pole and 0.41 cm width at the cranial pole.

**Spleen**

The spleen exhibited subtle generalized parenchyma heterogeneity. Mildly expansive mixed echogenic nodular mass was present in the subjective caudal spleen with associated mild medial capsule distortion. No overt evidence of parenchymal escape or mass rupture. The mass measured approximately 3.8 cm in diameter. Concurrent multiple nondisruptive uniformly hyperechoic splenic nodules were present in the mid to cranial spleen.

**Liver**

The liver exhibited generalized enlargement with normal structure and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. Multiple subtle variably echogenic intraparenchymal nodules, an example measured 1.2 cm in diameter.

The gallbladder was non distended in size with mild gallbladder debris. The gallbladder was otherwise normal. The cystic duct and common bile ducts were normal without evidence of dilation.

**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.



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The small intestine presented intact wall layering and maintained 1:3 muscularis/mucosa ratio. Mild subtle duodenojejunal mucosal speckling. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. Both the duodenum and jejunal walls measured 0.42 cm.

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Normal visible colon wall layers were present with subjective semi-formed to possible non-formed feces present in the proximal colon.

**Pancreas**

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The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. The pancreatic presentation was likely consistent with age-related pancreatic changes and considered incidental.

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**Free Abdomen**

No evidence of peritoneal effusion secondary to splenic mass rupture. Normal uniform omentum present.

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A solitary enlarged colic lymph node was present. These lymph nodes were homogenous, mildly hypoechoic and smoothly marginated. Borderline abnormal width: length ratio was noted. Evidence of perilymphatic inflammation was evident. The lymph node measured 1.5 cm x 0.86 cm.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

6.3 kg

- Mixed echogenic nodular splenic mass, concurrent nondisruptive hyperechoic splenic parenchyma nodules
- Hepatic parenchymal remodeling with intermittent variably echogenic subtle parenchymal nodules- subjectively benign
- Minor gallbladder debris (non-mucocele)
- Nonspecific mild duodenojejunal mucosal speckling
- Focal prominent to hypoechoic colic lymph node
- Mild chronic renal changes

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The nodular to mixed echogenic splenic mass is nonspecific with multiple potential etiologies, including nodular hyperplasia, hematopoiesis, hematoma, fibrosis, atypical myelolipoma, infarction, while the possibility of splenic neoplasia cannot be excluded. Neoplastic criteria for the nodule or splenic mass is considered less likely. The hyperechoic nondisruptive splenic nodules, although nonspecific are most likely consistent with benign myelolipomas.

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The subtle variably echogenic hepatic nodules, although not definitive, are likely consistent with nodular to regenerative hyperplasia or areas of hepatic hematopoiesis with primary or neoplastic criteria considered less likely.

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Potential for underlying intestinal inflammatory disease may be present if previous or current history of gastrointestinal signs with potential for focal colic lymphoid hyperplasia or reactive lymphadenitis. Emerging colic lymphatic neoplasia is considered less likely yet cannot be definitively excluded.

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Assuming normal clotting status, ultrasound guided FNA of the splenic mass and colic lymph node +/- liver could be considered for screening cytology. Pending echocardiographic assessment, sonographic reassessment of the splenic mass and colic lymph node in 3-4 weeks would be reasonable.

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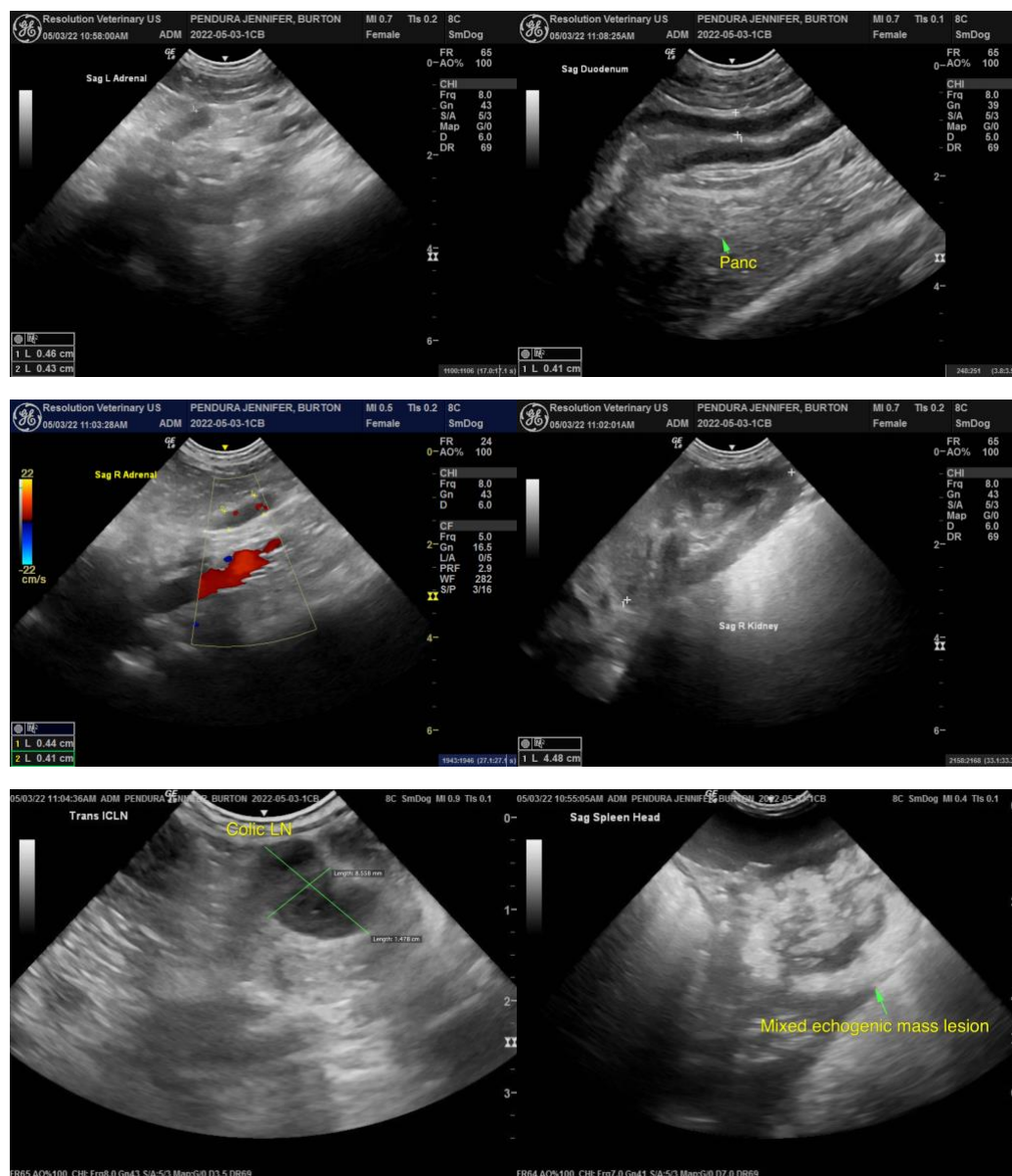
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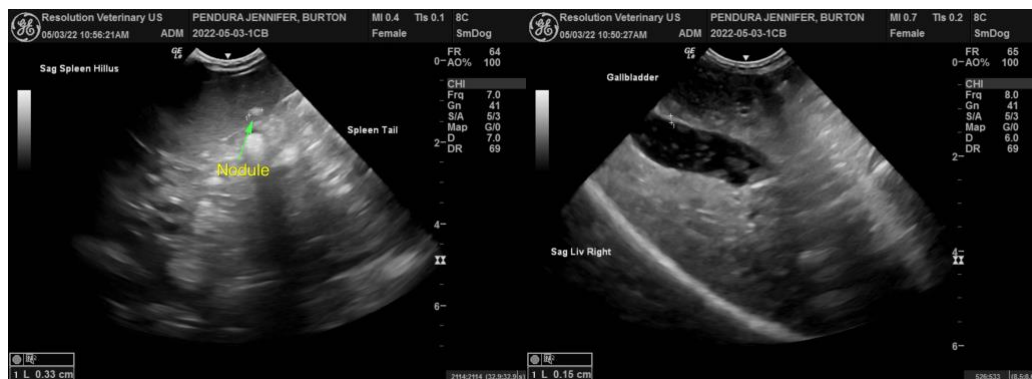
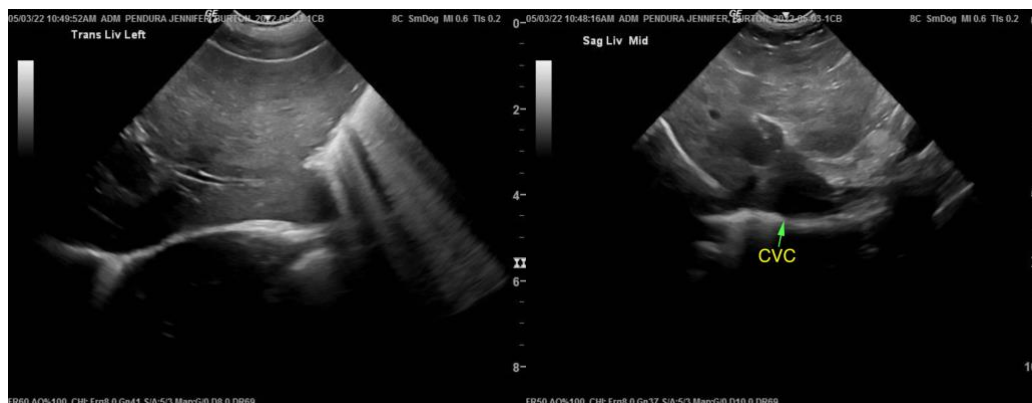
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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