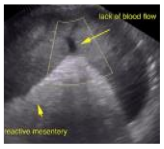
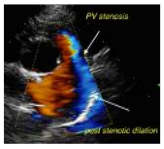
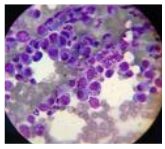
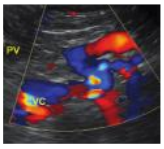
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™






SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Miller MacMurdo

**SPECIES**

Canine

**BREED**

Lab X

**SEX**

Male Neuter

**AGE**

12

**WEIGHT**

35.5 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Belan

**HOSPITAL NAME**

McKnight 24 Hr

**REFERRING VET**

Dr. Picyk

**INVOICE**

13790

**DATE**

5/4/22

## PRESENTING CLINICAL SIGNS

Ataxic and lame. Splenic masses seen on AFAST
Abnormal PE/Chem/CBC/UA Results: Mild elevation of ALP ALT and hyperglobinemia.

## 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 was noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 1.1 cm in diameter.

The area of the aortic trifurcation was free of pathology.

Normal margination was 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 border demarcation expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.8 cm in length. The right kidney exhibited potential mild subnormal size compared to the left measuring 5.1 cm in length.

### *Adrenal Glands*

A mild, non-expansive nodule was present in the mid to cranial left adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.0 cm x 0.83 cm. The overall left adrenal gland measured 0.83 cm width at the cranial pole and 0.49 cm width at the caudal pole.

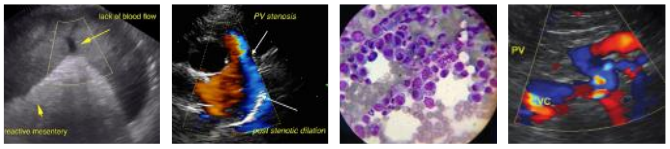
The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.67 cm width at the cranial pole and 0.71 cm width at the caudal pole.

### *Spleen*

The spleen exhibited subjective mild generalized enlargement with potential mild medial folding of the caudal spleen. A primarily maintained symmetrical capsule contour with generalized parenchyma heterogeneity was present. Multifocal to diffuse, coalescing, hyperechoic areas of splenic parenchyma to nodules were present. Normal splenic vascularity was evident. A solitary mid-splenic cyst to cystic nodule was present measuring 1.5 cm In diameter. An example of a hyperechoic splenic nodule measured 1.3 cm in diameter.

### *Liver/ Gallbladder*

The liver was subjectively normal in size, 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

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signs of congestion. Indistinct nondisruptive to subtle parenchymal nodules were present. The gallbladder was non-distended in size. The gallbladder walls were sonographically normal. Primarily anechoic content was present with probable solitary congealed hyperechoic sludge measuring 2.8 cm in diameter. Potential for emerging cholelith is possible. Neoplastic criteria are considered unlikely.

### *Gastrointestinal*

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained moderate, retained, ingesta / chyme most consistent with post prandial presentation without signs of ileus, obstruction or foreign material. The stomach was otherwise normal.

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

### *Free Abdomen*

No overt lymphadenopathy or peritoneal effusion was present.

Rapid view of the heart revealed no evidence of pericardial masses or effusion in the visible window.

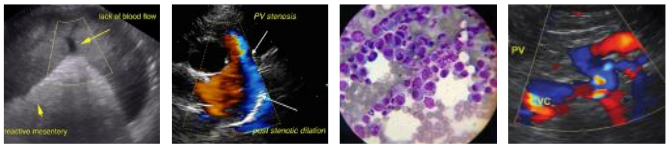
## ULTRASONOGRAPHIC FINDINGS

- Mild splenomegaly exhibiting multifocal to diffuse coalescing hyperechoic nodules and focal mid-splenic cyst
- Hepatic parenchyma remodeling with indistinct parenchyma nodules - subjectively benign
- Probable focal congealed gallbladder sludge
- Mild chronic renal changes
- Left adrenal nodule - suspect adenoma

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The overall appearance of the liver was nonspecific yet consistent with benign hepatopathy exhibiting parenchyma remodeling and suspect Indistinct areas of nodular to regenerative hyperplasia or potential hematopoiesis.

The splenic presentation was nonspecific with multiple potential etiologies including extramedullary hematopoiesis, benign hyperplasia, incidental splenitis with suspected multifocal to coalescing benign myelolipomas, potential previous to chronic infarction, or emerging mineralization. Neoplastic criteria for the spleen Is thought less likely yet cannot be definitively excluded. Further assessment of both the



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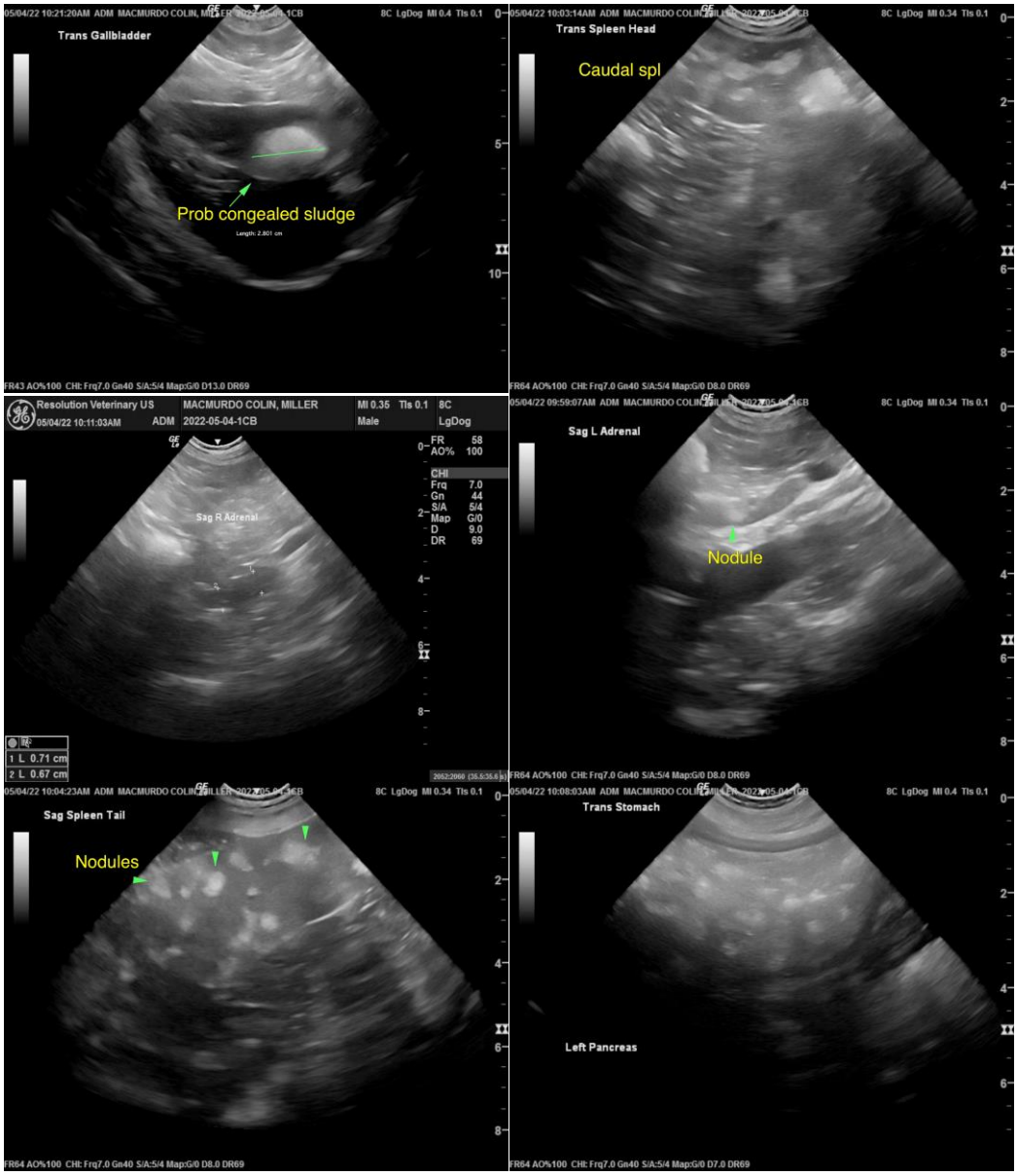
liver and spleen may Include, assuming normal clotting status, ultrasound-guided FNA using a 25-gauge needle for screening cytology.

Initial sonographic monitoring of the spleen, given the lack of perisplenic omental reactivity or perisplenic effusion, would be reasonable. Likewise, sonographic monitoring of the left adrenal nodule for evidence of progressive nodular changes, which may suggest underlying neoplastic criteria, is recommended. Screening blood pressure to assess for evidence of hypertension, which may potentially allude to emerging left adrenal pheochromocytoma, is suggested.



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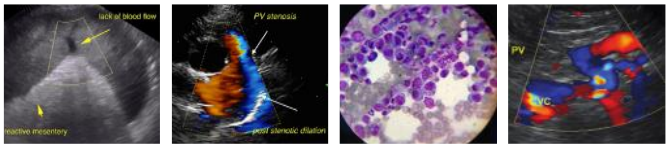

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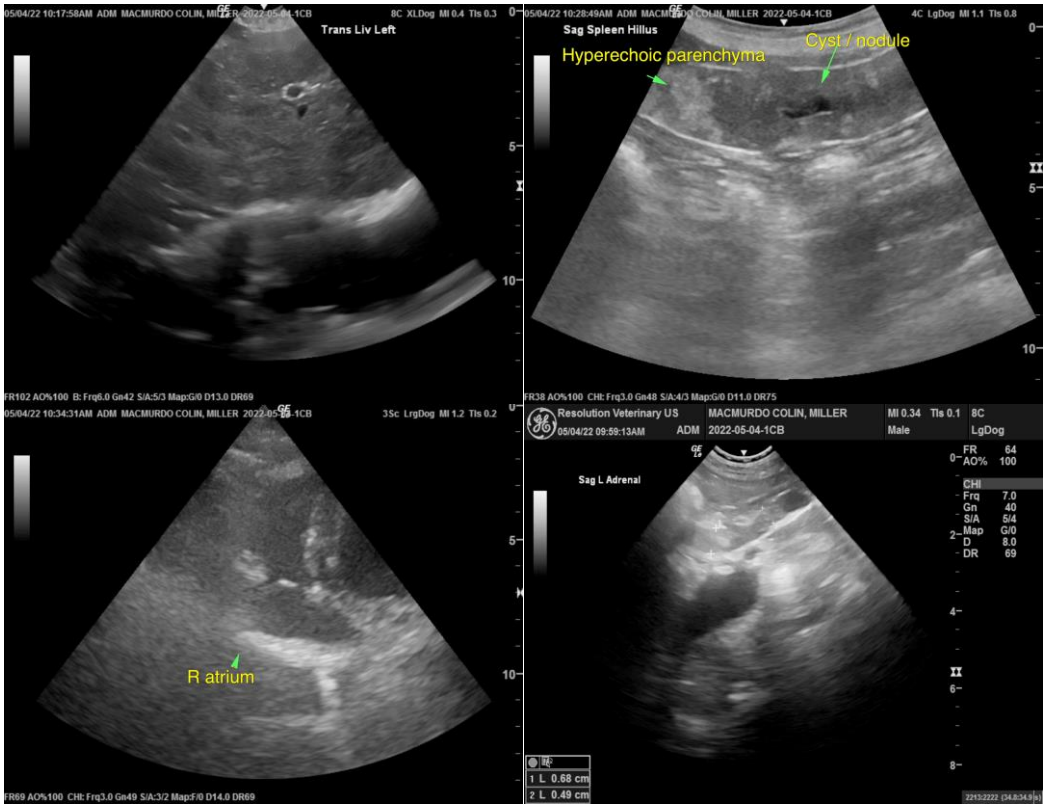


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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**