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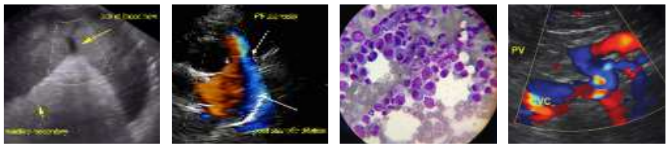


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Mia Ramage

SPECIES

Canine

BREED

Retriever X

SEX

Neutered Male

AGE

10 years

WEIGHT

73 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Celine Ward

HOSPITAL NAME

Kenora Veterinary Clinic

REFERRING VET

Dr. Celine Ward

INVOICE

12383

DATE

10/18/21

PRESENTING CLINICAL SIGNS

Presented Oct 2021 for poor balance, wobbling, and gagging. Energy low and inappettant. Occasionally will 'bring up' phlegm or food. Neuro exam WNL, mentation BAR during visit Abnormal PE/Chem/CBC/UA Results: CBC NSF Chem mild elevation in alb, Rads: Right lateral thorax: VHS normal. Normal cranial pulmonary vessels. Aorta is opaque (has been the same appearance on previous rads over the years). Mineralopaque, round area noted in cranial abdomen (unsure if within stomach?) VD thorax: Thorax NSF. Mineralopaque, round area noted in right cranial abdomen (unsure if within stomach?)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction 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 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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. Areas of nonobstructive medullary mineral with potential for lateral right kidney cortical infarction. No evidence of pelvic dilation was present. The left kidney measured 5.5 cm in length. The right kidney measured 6.2 cm in length.

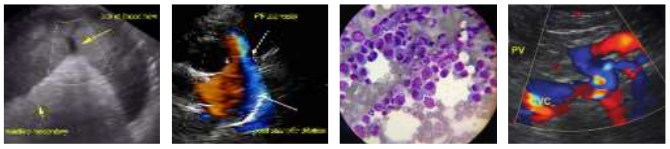
Adrenal Glands

The left adrenal gland exhibited mid to cranial enlargement with symmetrical capsule deviation along with nonhomogeneous to nodular parenchyma. Overt evidence of mineralization associated with the left adrenal gland was not overtly evident. No evidence of parenchymal escape or overt vascular invasion was noted. The left adrenal gland measured 2.3 cm length x 2.1 cm width at the cranial pole and 1.0 cm width at the caudal pole.

The right adrenal gland exhibited generalized enlargement with evidence of mild capsule deviation. Areas of parenchymal mineralization associated with the right adrenal gland were present. No evidence of parenchymal escape or overt vascular invasion was noted. The right adrenal gland measured 3.0 cm length x 1.8 cm width at the cranial pole and 0.87 cm width at the caudal pole.

Spleen

The spleen exhibited generalized enlargement with a primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present. A moderately sized to expansive, nonhomogeneous to mixed echogenic, mildly cystic mass lesion was present in the spleen, measuring approximately 7.0 cm in diameter. Mild, regional perisplenic reactive mesentery was noted. Concurrent, non-expansive, uniformly echogenic parenchyma nodules, not associated with the splenic mass, were noted. An example measured 0.96 cm in diameter. The splenic vasculature at the hilus was normal in volume with no evidence of



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congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/ Gallbladder

The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a moderately coarse echotexture and evidence of parenchymal remodeling. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with 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 primarily empty with mild retained anechoic fluid and lumina gas. Overt evidence of shadowing gastric foreign material was not noted.

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.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral chronic renal changes with mild medullary mineral
- Left adrenal cranial enlargement with nonmineralized nodular changes
- Right adrenomegaly with parenchymal mineralization
- Vacuolar Hepatopathy pattern with parenchymal remodeling
- Splenomegaly with nonhomogeneous to midly cystic mass and concurrent parenchymal nodules

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The splenic mass is nonspecific with considerations including hyperplasia, hematopoiesis, granuloma, splenitis, or neoplasia (sarcoma, round cell neoplasia, other). Neoplasia Is favored, although not definitive.

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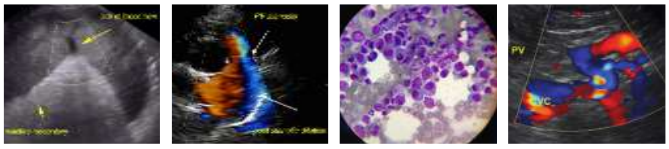

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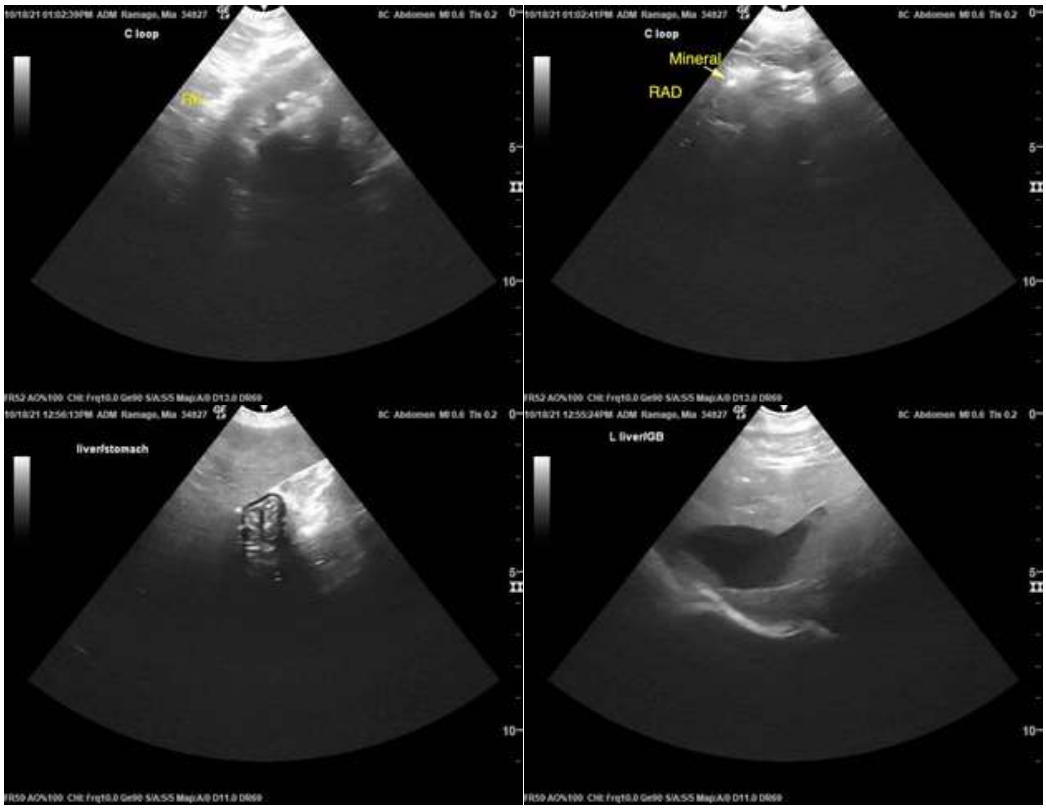
The bilateral adrenomegaly exhibiting left adrenal nodular changes and right adrenal mineralization may include adenomatous change, hyperplasia, with warranted concern for potential right adrenal neoplasia such as adenocarcinoma, pheochromocytoma, or other given the presence of mineralization while the possibility of concurrent or bilateral neoplasia or mixed pathologies is possible.

Given the patient's clinical signs, screening blood pressure to assess for evidence of hypertension, as well as urine catecholamine levels, may be considered.

Overt evidence of hepatic metastasis either from the splenic mass or bilateral adrenal gland was not definitively evident. Abdominal CT may be ideal for further assessment. Continued as-needed gastrointestinal support Is indicated.



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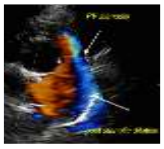
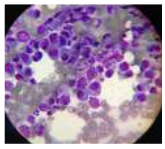
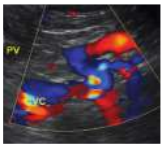

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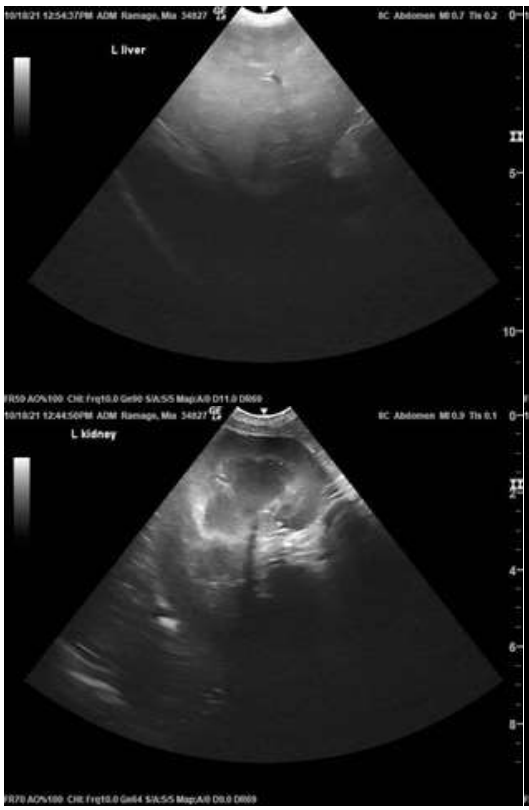

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com