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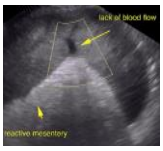
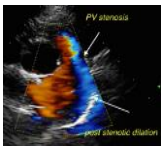
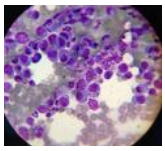
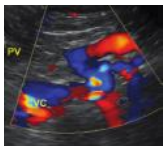

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1-800-838-4268 info@sonopath.com

PATIENT

Marley Denning

SPECIES

Canine

BREED

Australian Shepherd

SEX

Spayed female

AGE

13 years

WEIGHT

23 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Patti Mayfield DVM

HOSPITAL NAME

Tumalo Animal Hospital

REFERRING VET

Dr. Keaton Cuthbert DVM

INVOICE

10096ag

DATE

03/01/2022

PRESENTING CLINICAL SIGNS

History: Primary Problem(s): Splenic mass (no free fluid seen in abdomen) decreased HCT (35% 2/10, 30% 2/21, 40% on 2/24) Pertinent Medical History: Marley presented 2/10/22 for a wellness exam, routine lab work revealed a significant UTI (rods) and a mildly decreased HCT. serial PCVs taken, anemia worsened on 2/21/22. Abdominal ultrasound revealed large suspect splenic mass Diagnostic Tests Performed/Results: ultrasound-splenic mass, no obvious liver metastasis was seen, no free fluid in the abdomen, and no pericardial effusion Thoracic radiographs revealed no evidence of pulmonary metastasis Current Medication: Yunnan Baiyo 2 capsules PO BID Previous surgical and/or other procedure(s) and date(s): dental cleaning with extractions 10/14, 2020

Abnormal PE/Chem/CBC/UA Results: PE: Lenticular sclerosis OU, dental disease, mm's pink, CRT wnl. Overweight. Dull coat. Multiple SQ masses and adipose deposition consistent with lipomae. Dense abdomen, non-painful. Panting, but eupneic. 2/10/21: CBC: -- WBC: 4400/uL (4900-17,600) -- LYMPH: 537/uL (1060-4900) -- HCT: 34.7% (38-56) --HGB: 11.5 g/dL (13.4-20.7) --PLT: decreased-micro clot in sample CHEM: -- BG: 115 mg/dL (63-114) -- BUN: 38 mg/dL (9-31) -- AMYL: 1713 (337-1469) -- LIPA: 1325 (0-250) UA: -- USG: 1.017, 3+ proteinuria -- >100 WBC/HPF -- Marked rods (>40/HPF) -- 10-15 RBC/HPF T4: -- wnl at 1.9 ug/dL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 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.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. A likely lateral chronic cortical infarct was observed in the right kidney.

The area of the aortic trifurcation is free of pathology.

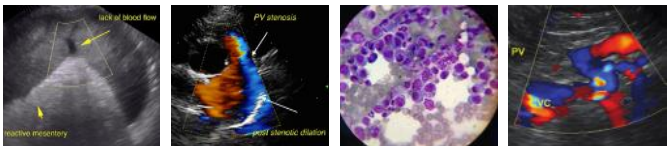
Adrenal Glands

The right adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The right adrenal gland measured 2.0 cm width in the cranial pole and 0.80 cm width in the caudal pole.

A subtly expansive, well-defined, hyperechoic nodule was present in the left adrenal gland at the caudal pole without evidence of capsule distortion or parenchymal escape. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.1 cm x 1.1 cm. The left adrenal gland measured 2.1 cm width in the cranial pole and 1.3 cm width in the caudal pole.

Spleen

A mass involving the spleen with secondary asymmetrical capsule expansion and disruption was present in the cranial spleen and measured 7-8 cm in diameter. The mass was heterogeneous to mixed echogenicity with areas of intra mass cysts to potential cavitation which may indicate areas of necrosis or intra mass hemorrhage. The parenchyma was non homogenous with potential for focal mineral. The



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remainder of the spleen exhibited generalized mild parenchymal heterogeneity without additional masses or nodules noted.

Liver

The liver exhibited mild generalized enlargement with intermittent to multiple discrete isoechoic to non-homogenous nodules/macro nodules to small isoechoic mass present in the caudal aspect of the mid to left liver. An example of a macro nodule measured 4.4 cm. An example of the small isoechoic indistinct mass measured 5.7 cm in diameter. The gallbladder was non distended in size with mild echogenic, nonmineralized biliary debris. 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.

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 evidence of omental masses/seeding, splenic mass rupture with secondary hemoabdomen or lymphadenopathy.

Cardiac

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

ULTRASONOGRAPHIC FINDINGS

- Confirmed splenic mass.
- Nonspecific nonhomogeneous to indistinct hepatic nodules to small isoechoic mass.
- Bilateral moderate chronic renal changes with right kidney lateral cortical infarct.
- Nonspecific left adrenal nodule-suspect adenoma (functional vs nonfunctional). Potential lipogranuloma, hyperplasia or emerging neoplasia such as pheochromocytoma, adenocarcinoma or other.
- Sonographically unremarkable urinary bladder.

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).

The liver nodules/mass may indicate benign processes such as areas of hyperplasia, lipogranulomas, hematopoiesis or similar. The potential for primary or metastatic neoplastic nodules given the presence of the splenic mass cannot be excluded.

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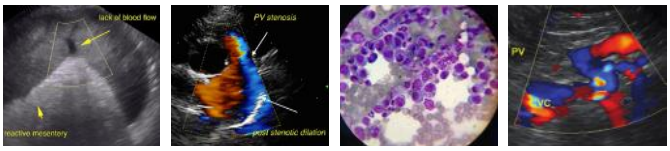

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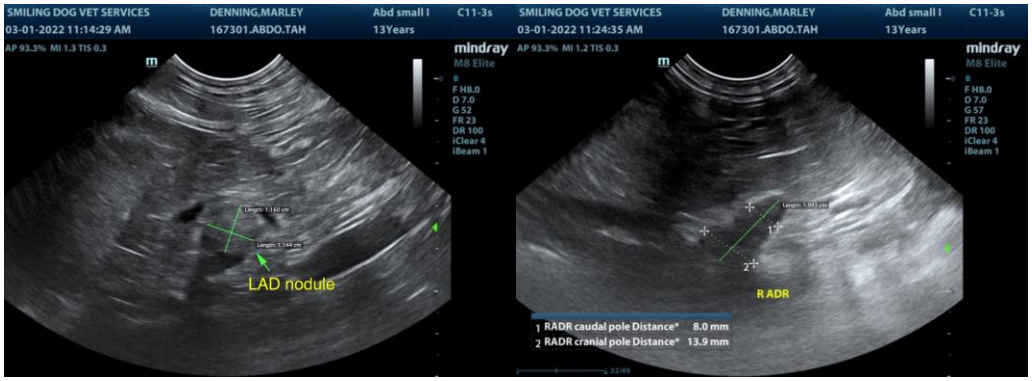
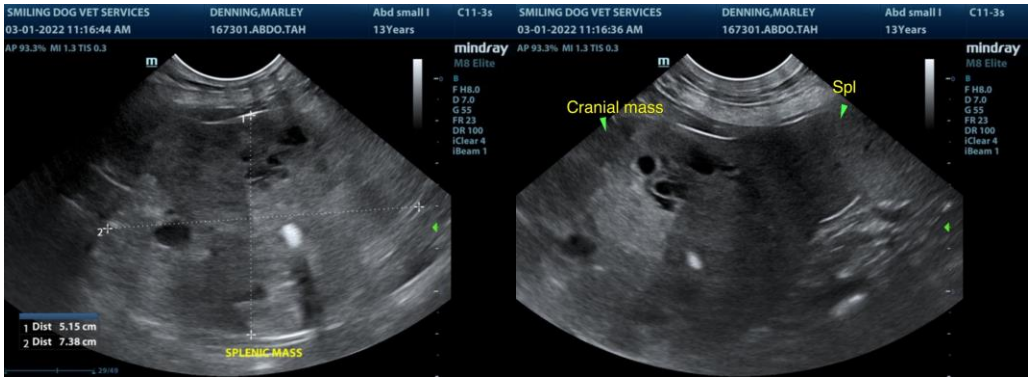
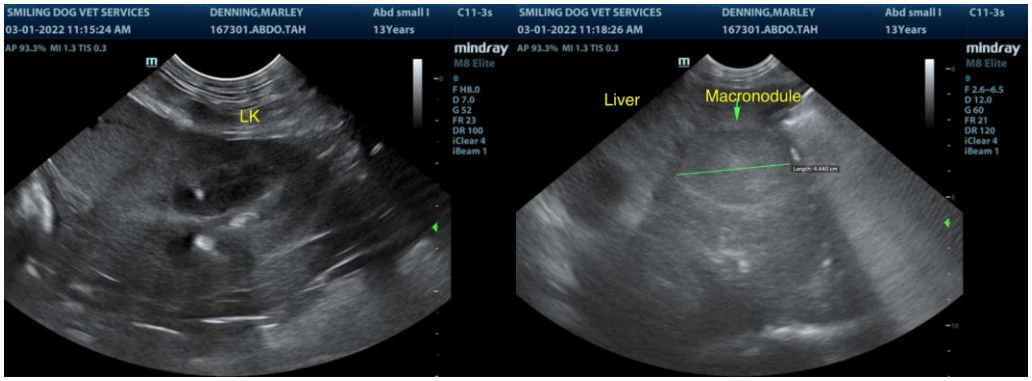
Screening BP to assess for evidence of hypertension associated with left adrenal nodule is recommended. Adrenal workup could be considered if clinical signs suggestive of adrenal hyper functionality are present.

If no evidence of thoracic pathology on three view chest radiographs is seen, a laparotomy with splenectomy, gross inspection of the liver and hepatic biopsies could be considered. Gross inspection of the left adrenal gland at the time of surgery would be appropriate while sonographic monitoring of the left adrenal gland for evidence of progressive changes would be a more conservative approach.







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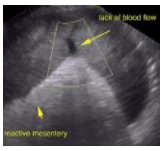
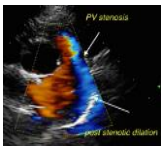
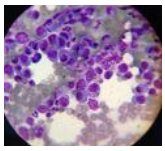
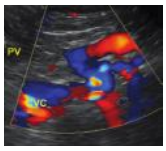

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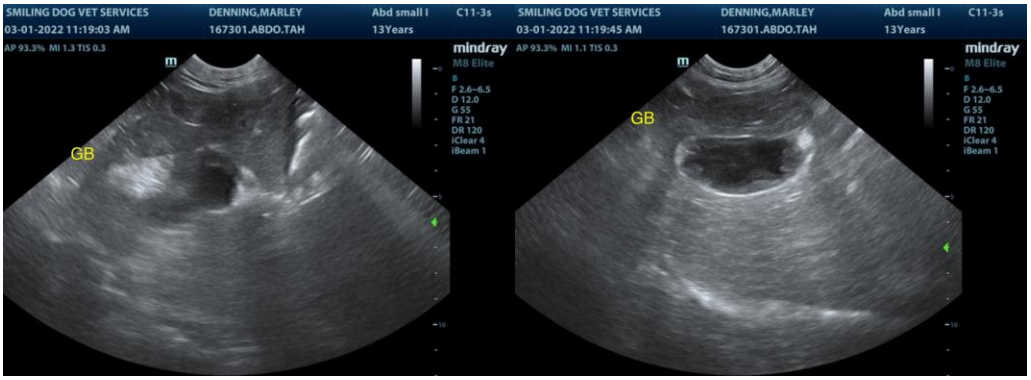

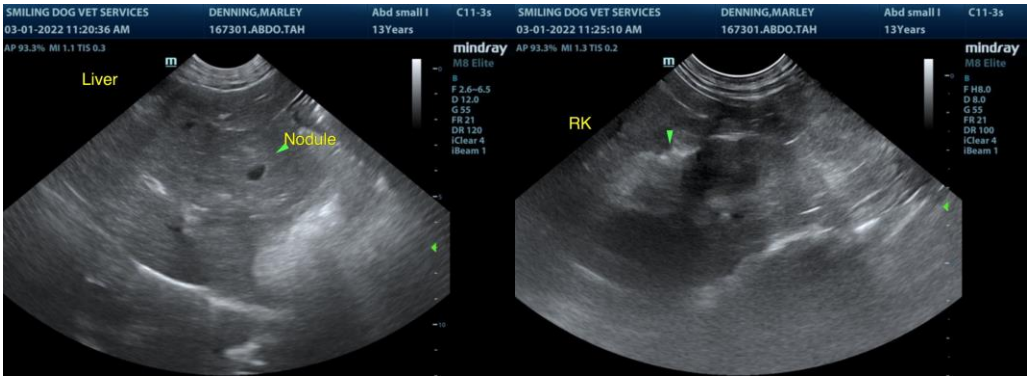

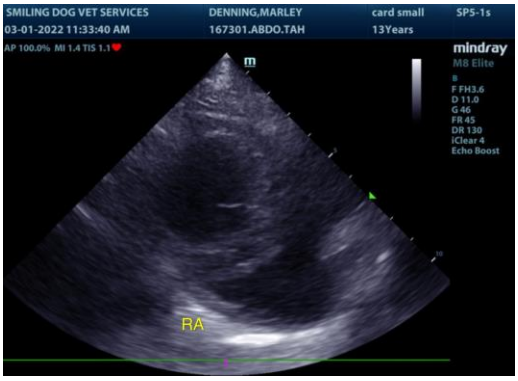

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

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