**PATIENT**

Vader Bremmeyr

SPECIES

Canine

BREED

Lab

SEX

MN

AGE

13 years

WEIGHT

76 lbs.

INTERPRETED BYR. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)**IMAGING
PERFORMED BY**

Amy Mayhew LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Milford VC

INVOICE

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DATE

11/3/22

PRESENTING CLINICAL SIGNS

FNA of growth on R caudal thigh performed on 9/21/22, cytology report indicated proliferation of spindle cells with evidence of inflammation possibly suggesting reactive fibroplasia vs. neoplasia. Due to findings, surgical removal scheduled for 10/18/22. Owner reports PU/PD, otherwise no clinical signs.

Abnormal PE/Chem/CBC/UA Results: Radiographs and pre anesthetic bloodwork performed prior to surgery: chemistries indicated elevated liver enzymes and x-rays revealed possible enlarged liver and opacity caudal to liver.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder presented uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. The ventral urinary bladder wall thickness measured 0.6 cm. Mineralization or echogenic foci within the thickened areas of urinary bladder wall was not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal 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.

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. A solitary thinly walled anechoic cyst was noted. The left kidney measured 8.3 cm in length. The right kidney measured 8.2

Adrenal Glands

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.52 cm width at the caudal pole and 0.71 cm width at the cranial pole.

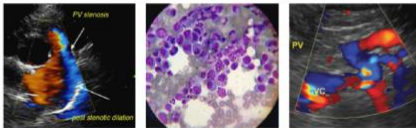
Two separate well-defined, hyperechoic nodules were present in the left adrenal gland (one in the cranial pole and one in the caudal pole) with mild associated symmetrical capsule expansion. The nodules did not exhibit signs of mineralization or vascular invasion. The caudal pole nodule was slightly larger, measuring 1.7 cm x 0.92 cm. Secondary generalized mild left adrenomegaly, measuring 3.5 cm length x 1.15 cm at the caudal pole in width.

Spleen

The spleen was mildly enlarged with maintained symmetrical capsule contour and generalized mild parenchyma heterogeneity. Intermittent nondisruptive variably echogenic splenic nodules were present. An example of nodule in the cranial spleen measured 0.72 cm in diameter. Splenic vascularity was normal.

Liver/ Gallbladder

The liver presented 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 mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The

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hepatic and portal vasculature were normal in appearance without signs of congestion. A solitary uniform mass was noted in the area of the right lateral to caudate liver lobe, exhibiting similar echogenicity to adjacent hepatic parenchyma, measuring 6.5 cm – 7.0 cm in diameter.

The gallbladder was non distended in size with mild debris, primarily in the caudal lumen and gallbladder neck. No evidence of gallbladder or peripheral gallbladder inflammation. 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 potential semi-formed fecal matter 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 incidental.

Free Abdomen

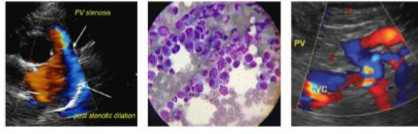
No omental masses, lymphadenopathy or peritoneal free fluid was present.

ULTRASONOGRAPHIC FINDINGS

- Mild cystitis pattern
- Mild chronic renal changes with small left kidney cyst
- Hepatopathy exhibiting hepatoma like right to caudate mass lesion
- Mild splenomegaly exhibiting intermittent variably echogenic nondisruptive nodules-subjectively benign
- Nodular left adrenal gland- functional versus nonfunctional adenoma, hyperplasia, lipogranuloma. Potential for emerging primary versus metastatic neoplasia, i.e., adenocarcinoma, pheochromocytoma possible.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Correlation with pending hepatosplenic FNA is warranted. Potential for hepatic or hepatosplenic primary versus metastatic neoplasia cannot be definitively excluded given the patient history. Screening blood pressure is recommended to assess for evidence of hypertension, which may allude to left pheochromocytoma. Likewise, full adrenal work up may be considered if clinical signs consistent with Cushings syndrome are present. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.



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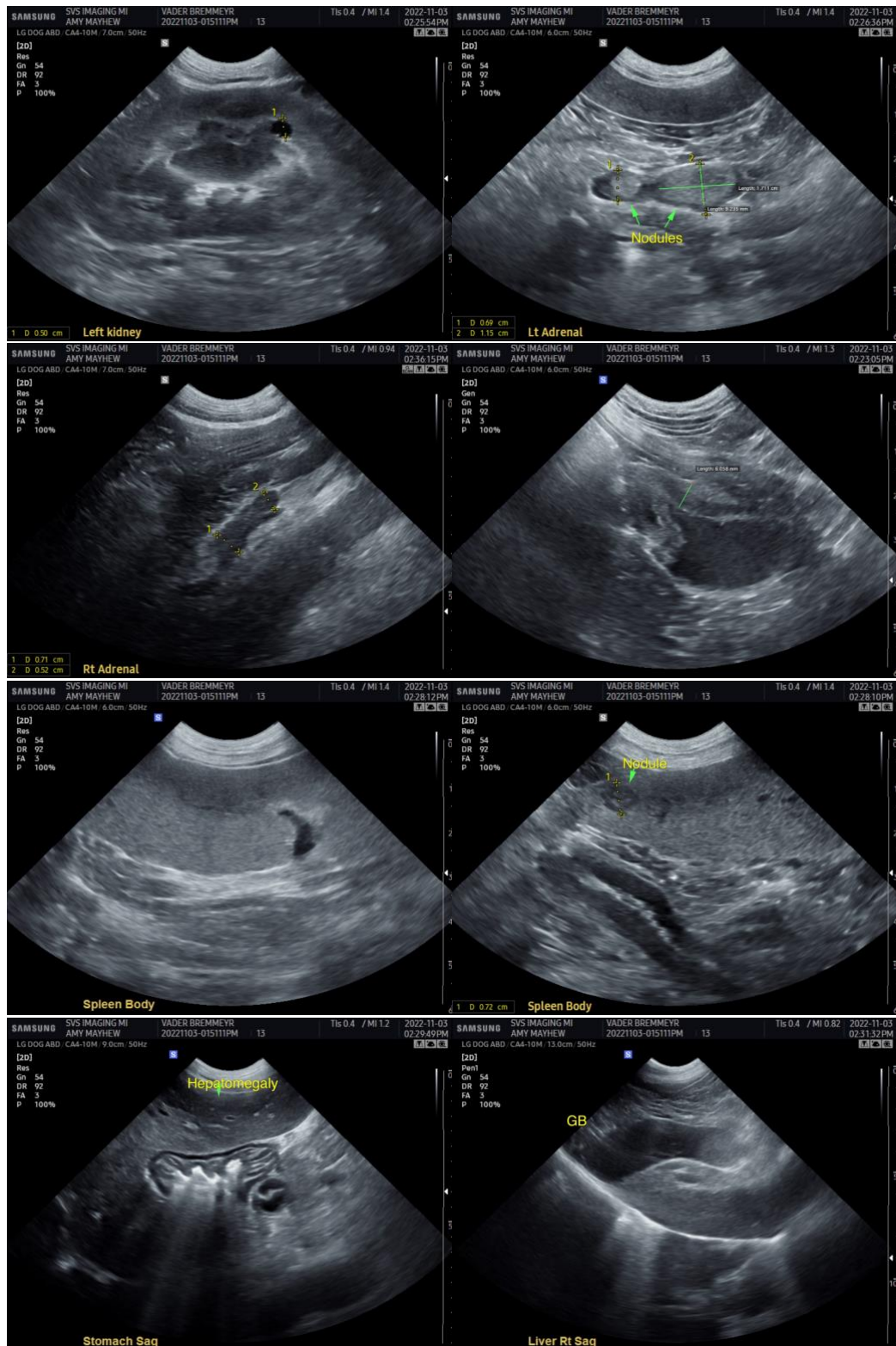
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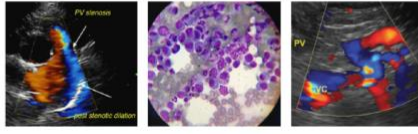
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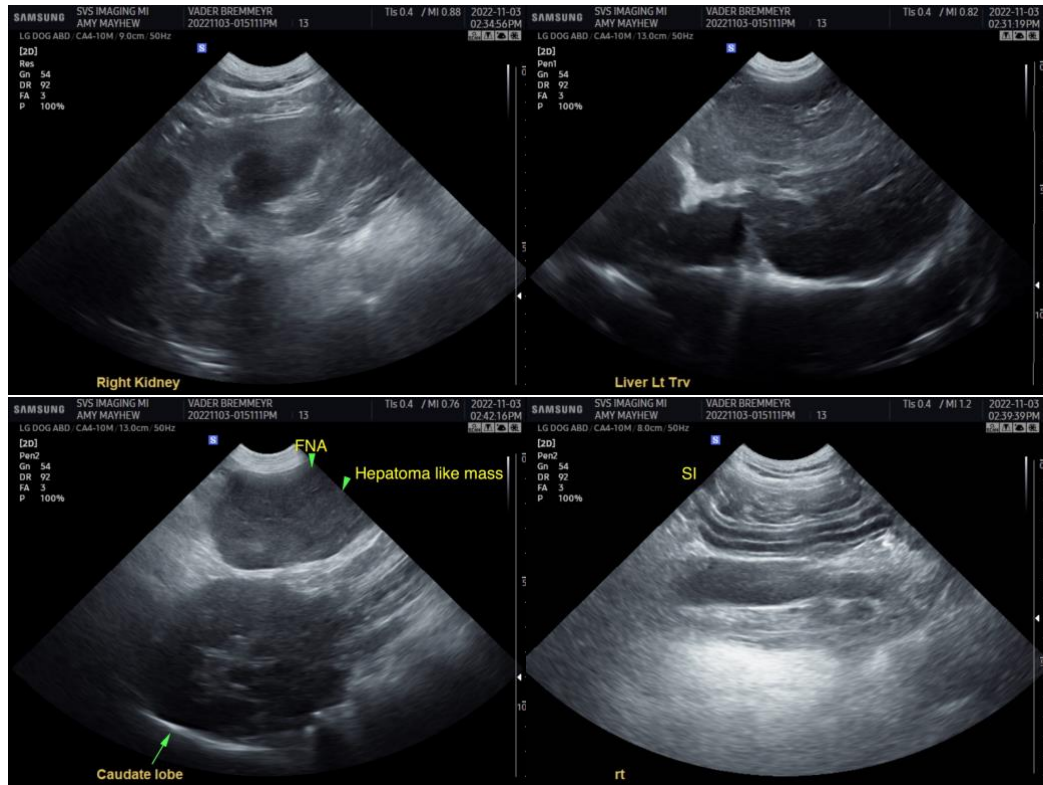
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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