



PATIENT

Max Scott

SPECIES

Canine

BREED

German Shepherd

SEX

Intact Male

AGE

7 Years

WEIGHT

87 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Integrative VS

INVOICE

20213

DATE

12/19/22

PRESENTING CLINICAL SIGNS

History: Leaking bloody urine (occasional; first noted early November). Urine habits normal, good urine stream. No straining, pain, etc. Patient also has occasional seizures; first noted in March 2022.

Abnormal PE/Chem/CBC/UA Results: Exam 12/1/22 WNL; full labs along with Vitamin D/nutrition panel/full thyroid WNL performed in March 2022 (Vitamin D slightly low). UA performed 12/1/22 showed NSF aside from 3+ blood. Owner requested abdominal U/S; x-rays have not been performed.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is symmetrically enlarged with smooth margins that are well differentiated from surrounding tissue. Normal bilobed shape is maintained. Parenchyma is heterogenous with scattered hyperechoic foci present. No mineral is noted. There is a 1.5 cm x 2.0 cm anechoic cyst present. The prostate measures 4.25 cm wide.

Left kidney is normal is size (8.06 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

Right kidney is normal is size (7.9 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

Adrenal Glands

Left adrenal gland is normal in size (0.58 cm at cranial pole and 0.64 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.53 cm at cranial pole and 0.67 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.



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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. The medial iliac lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

Other

There is a 0.5 cm anechoic/cystic lesion in the right testicle. The left testicle also has an approximately 1.0 cm hypo- to anechoic structure present adjacent to it, believed to be a nodule.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Benign Prostatic Hyperplasia with a prostatic cyst, although prostatic abscess can't be ruled out – Prostatic findings are most consistent with Benign Prostatic Hyperplasia (BPH) and hyperechoic foci consistent with increased vascularity and fibrosis often associated with BPH. Active prostatitis cannot be ruled out. Infiltrative neoplasia cannot be ruled out but is considered less likely.
- Reactive medial iliac lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Medullary rim sign bilaterally - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.

Secondary Findings

- Bilateral testicular nodules, both benign and malignant etiologies are differentials

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS



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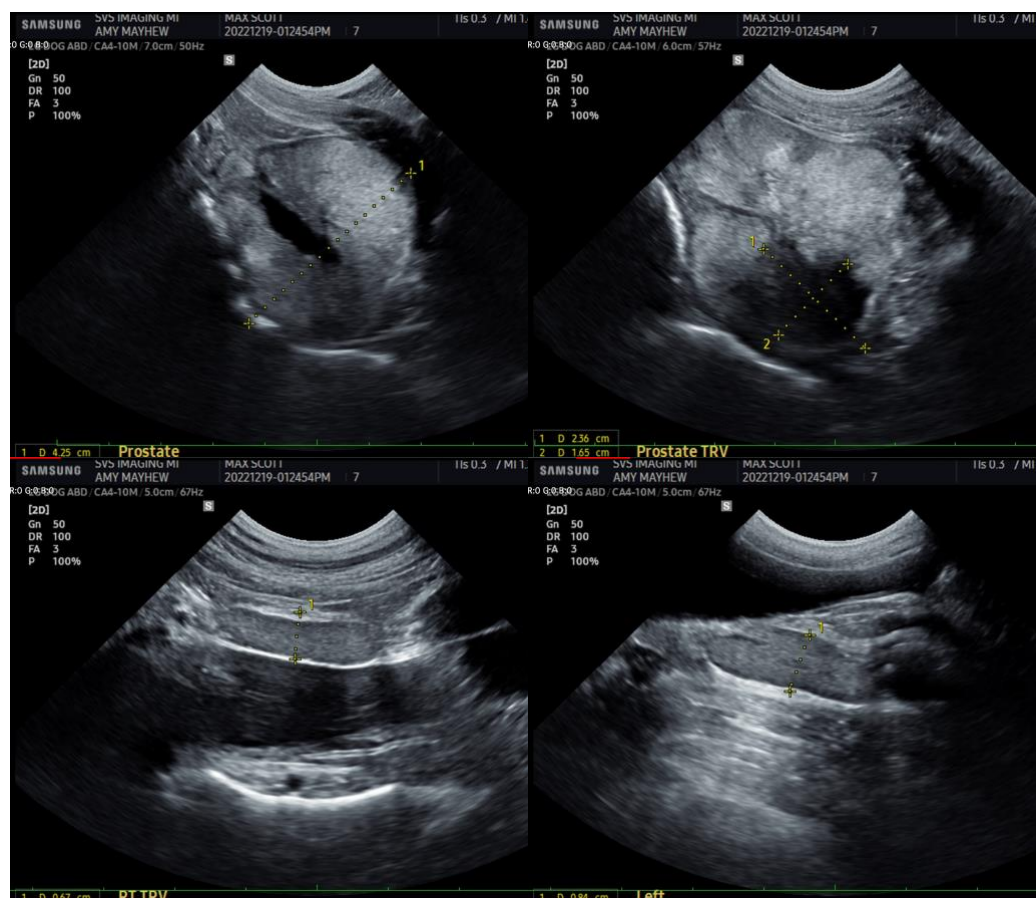
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A urine culture is recommended to rule out an occult urinary tract infection. Alternatively, an empirical course of antibiotics with good prostatic penetration could be tried with monitoring of clinical signs for improvement to empirically treat possible bacterial prostatitis. While the appearance of the prostatic enlargement appears benign, infiltrative neoplasia cannot be definitively ruled out, therefore, submission of urine to look for BRAF gene mutation, which is associated with urinary bladder cancer and/or prostatic cancer could be considered, as could a fine needle aspirate of the prostate and/or the enlarged medial iliac lymph nodes.

Ultimately, however, especially given the bilateral testicular nodules, neutering is recommended with submission of testicles for histopathology to prevent ongoing and progression of the prostatic disease.





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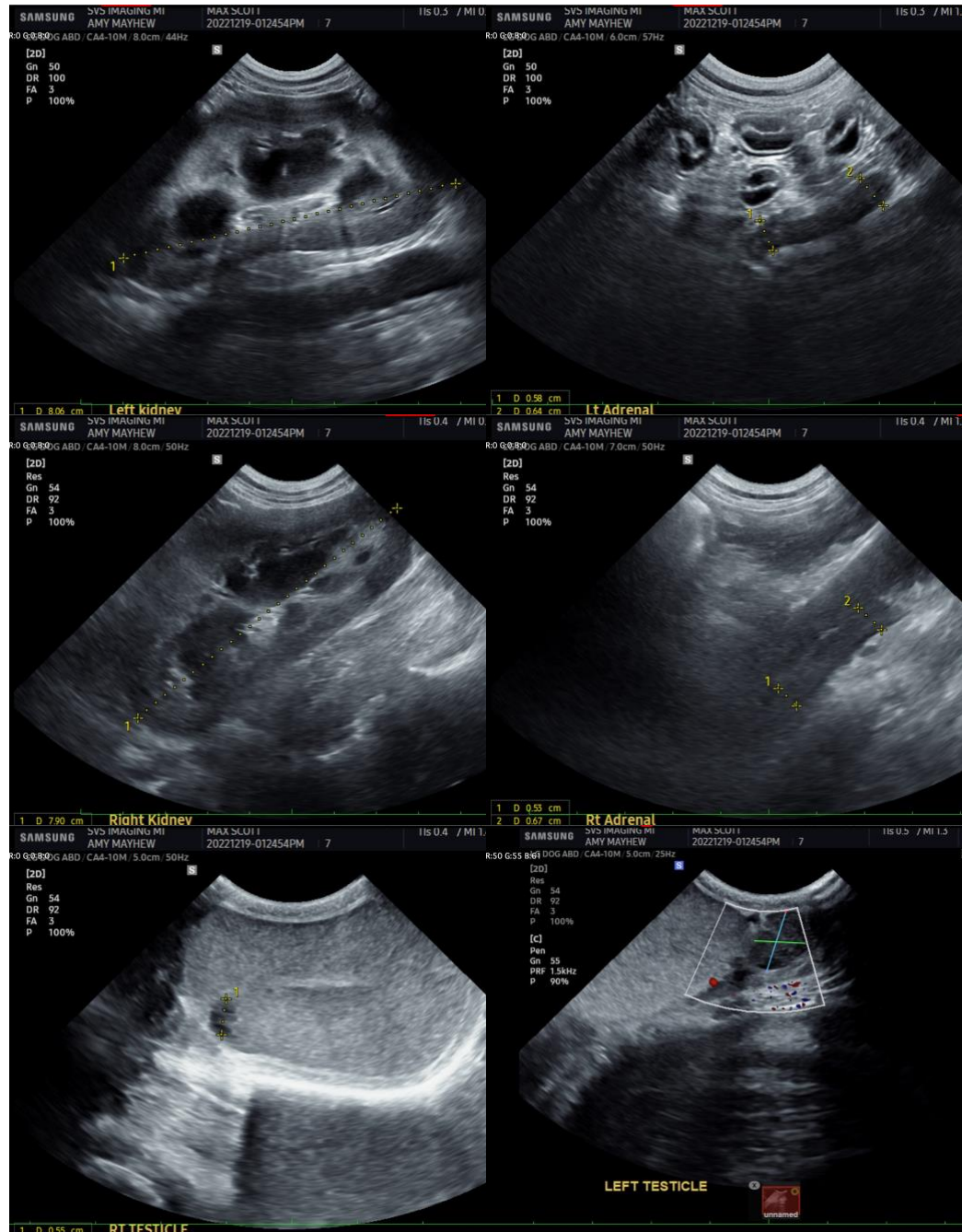
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM



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Beth.Johnson@SonoPath.com

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