

**PATIENT**

Snickers Campbell

PRESENTING CLINICAL SIGNS

Chronic UTI's
 Abnormal PE/Chem/CBC/UA Results: Blood in urine and possible stones?

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is adequately distended with primarily anechoic contents as well as suspended echogenic debris and multiple cystoliths, approximately 0.30-0.50 cm in diameter. There is also a solitary heterogeneous mass lesion in the trigone area, extending into the proximal urethra, measuring 1.8 cm long x 0.93 cm thick.

BREED

Shih Tzu X

The right kidney is normal in size (4.58 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 or infarcts observed. Non-obstructive areas of mineralization/nephroliths are noted. A cortical cyst is noted at 0.35 cm.

SEX

Spayed Female

The left kidney is normal in size (4.34 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 or infarcts observed. A cortical cyst is noted in the caudal pole measuring 0.40 cm. Non-obstructive areas of mineralization/nephroliths are noted.

AGE

6 Years

WEIGHT

12 Pounds

Adrenal Glands

The left adrenal gland is normal in size (0.55 cm at the cranial pole and 0.52 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INTERPRETED BYBeth Johnson, DVM
DACVIM

The right adrenal gland is normal in size (0.51 cm at the cranial pole and 0.55 cm at the caudal pole.), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Amy Mayhew, LVT

Spleen

The 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.

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Liver

The 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.

REFERRING VETBriarwood Vet
Hospital

Gallbladder is moderately distended with anechoic bile as well as mild to moderate suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

DATE

1/4/23

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PATIENT

Snickers Campbell

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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease.

SPECIES

Canine

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

BREED

Shih Tzu X

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

SEX

Spayed Female

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

AGE

6 Years

The right 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.

PRIMARY FINDINGS

- **Urinary bladder mass with multiple cystoliths** – Urinary bladder wall changes are most concerning for infiltrative neoplasia such as transitional cell carcinoma vs other. Benign inflammatory disease (cystitis) cannot be ruled out, especially given the other evidence of inflammation, cystoliths, etc., but is considered slightly less likely given the location and appearance of the tissue.
- **Mild to moderate gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- **Right medial iliac lymphadenopathy** – Most consistent with reactive lymph node. Infiltrative neoplasia can't be ruled out definitively without tissue sampling.

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SECONDARY FINDINGS

- Non-obstructive nephrolithiasis and small cortical cysts bilaterally in the kidneys

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

Urinalysis and urine culture, if indicated based on urinalysis results, are recommended. Submission of urine to look for BRAF gene mutation, which is associated with urinary bladder cancer, could be considered. Other diagnostic options include traumatic catheterization, fine needle aspirate (with small risk of tumor seeding/trailing) or cystoscopy for further sampling.

In the meantime, antibiotics, ideally based on culture and sensitivity results, and anti-inflammatories may be considered while awaiting for results, to begin offering some relief of the clinical signs.

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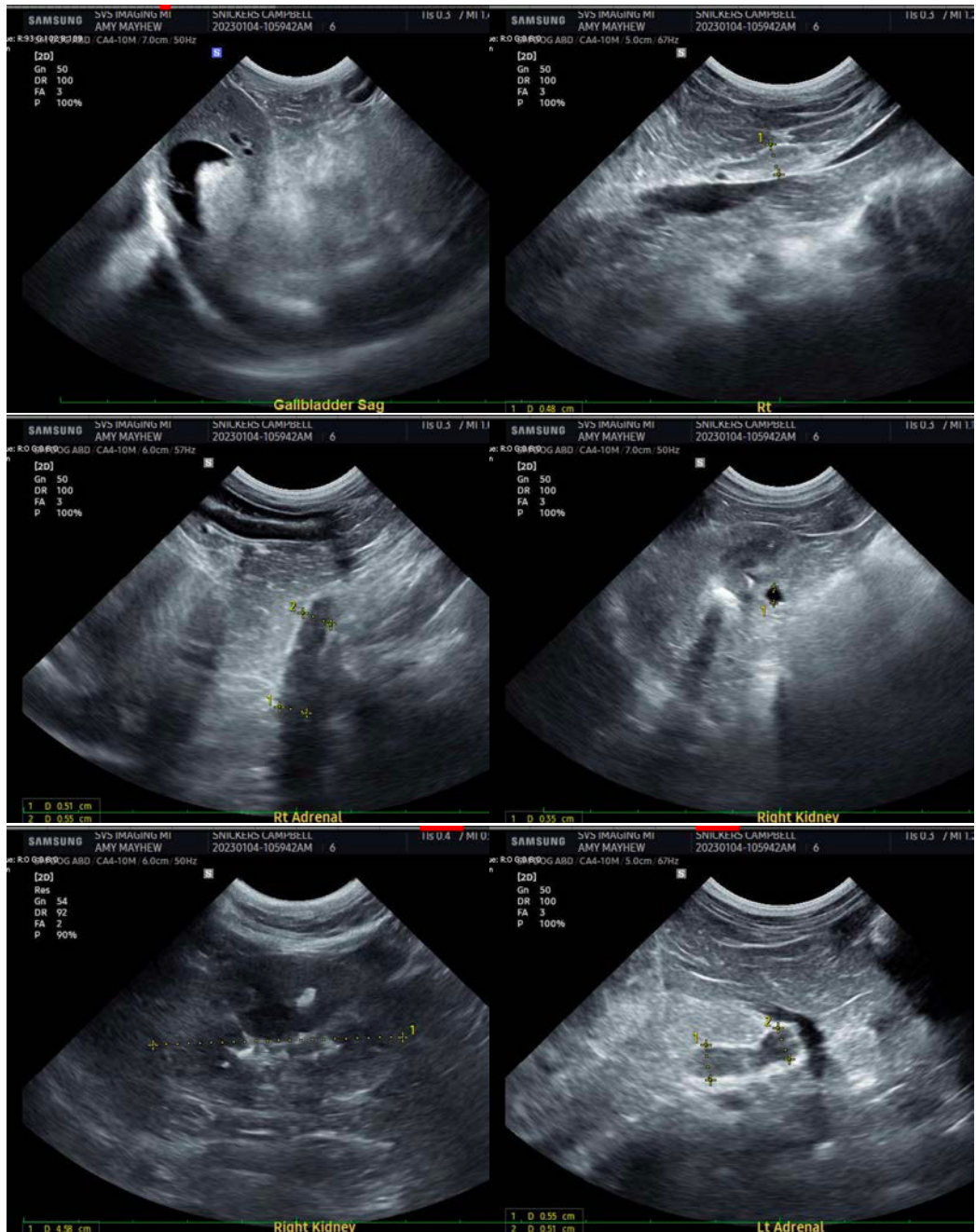
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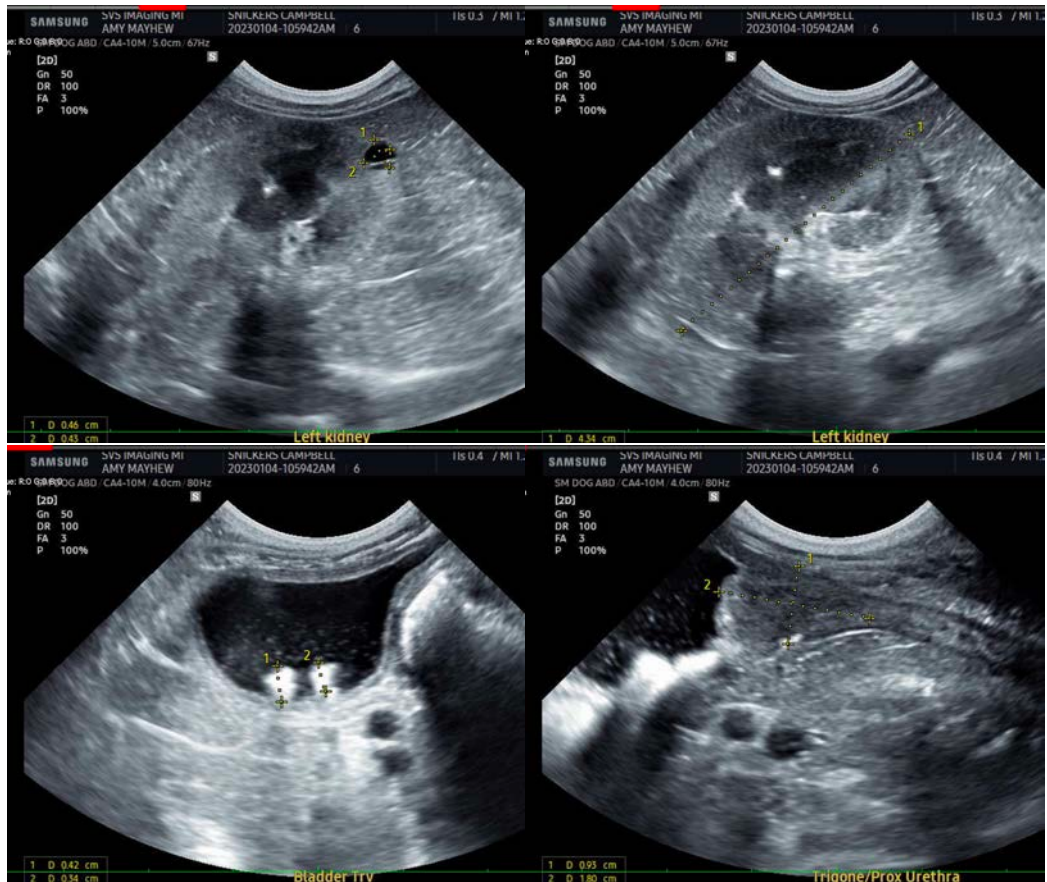
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
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