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Clinical Sonography & Telecytology
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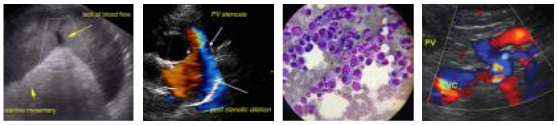


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT
Keisha Smith

SPECIES
Canine

BREED
Kelpie Mix

SEX
FS

AGE
7yr

WEIGHT
79.8lb

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

IMAGING PERFORMED BY
Jenna Walsh CVT

HOSPITAL NAME
Pleasant Hill AH

REFERRING VET
Dr. Larsen

INVOICE
13344ag

DATE
03/30/2023

PRESENTING CLINICAL SIGNS

General appearance-normal. Eyes-normal Musculoskeletal-over weight Ears-clean circulatory-no murmur respiratory-clear neurological-normal integument-Lt hip over illial glands-normal lymph nodes-normal abdomen-no pain noted. Subcutaneous mass Seborrhea Urinary Tract infection 12/28/22 Sample obtained via: Free-catch on date: 1.23.23 Radiographic Findings Views: Right lateral and VD abdominal radiographs. Results: Full urinary bladder, no radiopaque uroliths. Normal look to intestines. Gas in colon.Color: reddish, brown Appearance: cloudy Specific Gravity: 1.034 Occult Blood: +10 Bilirubin: NEG Urobilinogen: Normal 16 Ketones: NEG Protein: +++300 Nitrite: NEG Glucose: ++500 pH: 9 Leukocytes: trace 25 Ascorbic Acid: 40 Sediment: Yes, red pellet. Assessment: WBC 3-6 per hpf, RBC- TNTC, may have cocci, fat droplets. Transitional cells 2-3 hpf, occasional clumps of cells. Plan: Likely start on antibiotics again. Will wait to see what is visible on abdominal radiographs. Free T4ed is normal. Patient is not hypothyroid.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder was normal in size and tone. Diffusely thickened bladder wall was present primarily involving the ventral and apical urinary bladder with asymmetrical luminal surface. THE ventroapical urinary bladder wall measured 1.5 cm in width. Potential for pinpoint adhered luminal to possible pinpoint ventral mural mineralization. The trigone, cystourethral junction, and visible pelvic urethra to a depth of 4 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with minor particulate sediment. The sediment may indicate cellular debris / protein, crystalline debris, lipid, or mucus. No evidence of macrocalculi. No evidence of pericystic inflammation.

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 or pyelonephritis. The left kidney measured 7.1 cm in length. The right kidney measured 7.0 cm in length.

The area of the aortic trifurcation was free of pathology.

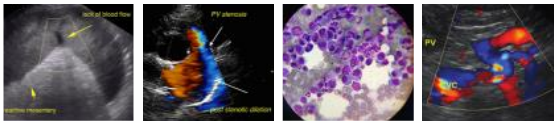
The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.64 cm width at the caudal pole and 0.69 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.96 cm width at the caudal pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.



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Liver/Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild to moderate non-organized hyperechoic debris. 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 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 parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Moderate to severe chronic cystitis with pinpoint potentially adhered luminal vs possible mural mineralization, possible extensive urinary bladder tumor.
- Sonographically normal bilateral kidneys-no evidence of pyelonephritis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the pattern of urinary bladder thickening, chronic cystitis with potential for embedded bacterial cystitis is suspected. However, the possibility of urinary bladder neoplastic criteria such as transitional cell carcinoma or other which may present in a similar sonographic manner cannot be definitively excluded. No overt evidence of regional inflammation or pericystic neoplastic/metastatic criteria. A screening BRAF assay is suggested. A urinary bladder mural biopsy is likely required for a definitive diagnosis.

Based on C/S results, a higher dose/shorter frequency antibiotic regimen i.e., Enrofloxacin 20 mg/kg PO SID x 4-5 days may prove more effective at eliminating recurrent or embedded infection. Sonographic monitoring of the urinary bladder pending additional diagnostics or sampling if elected is likely ideal.

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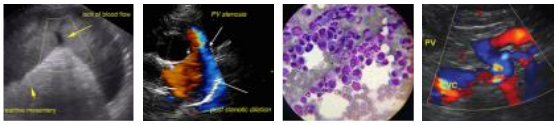

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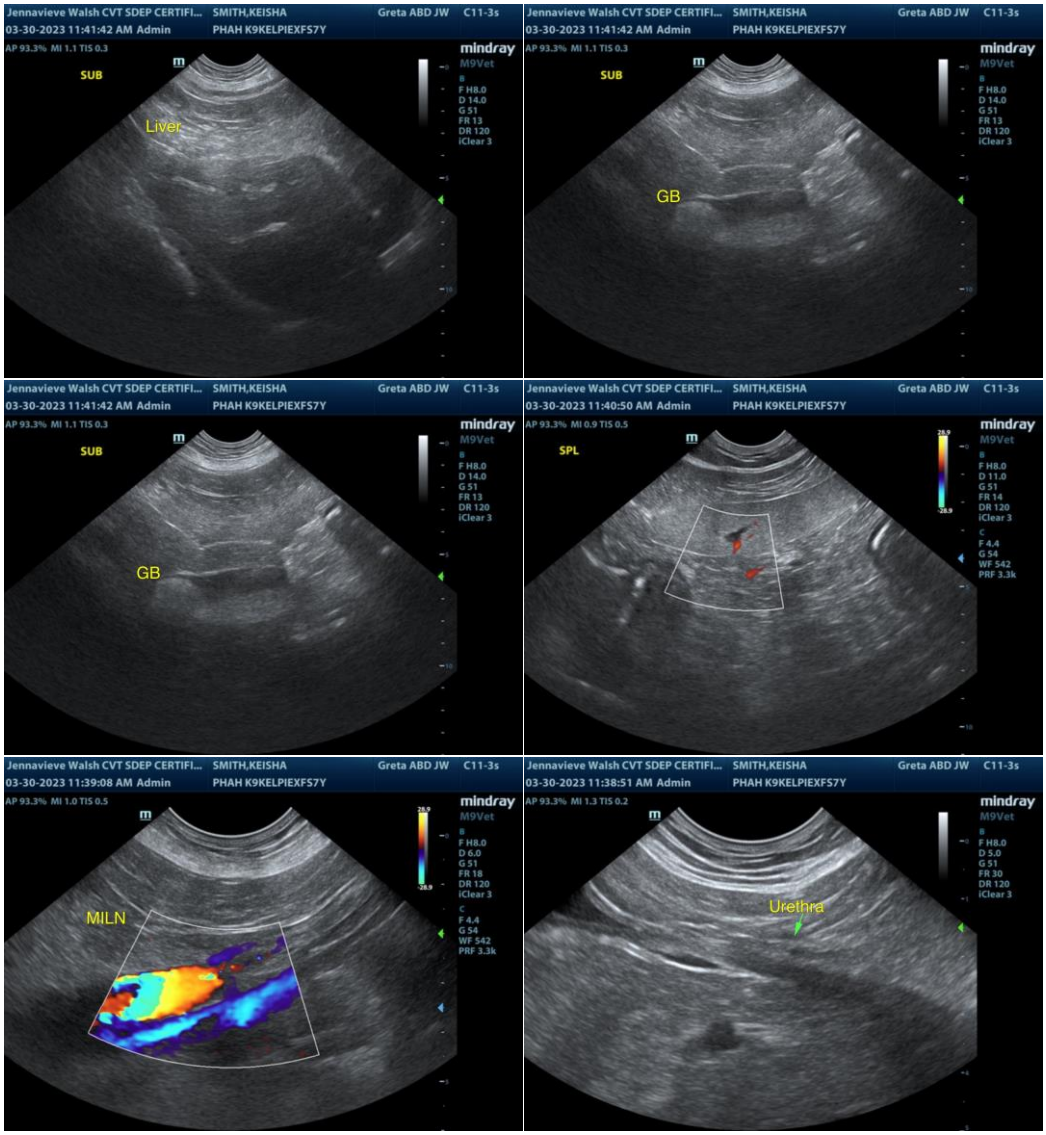

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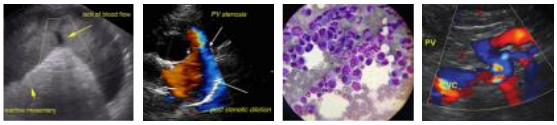

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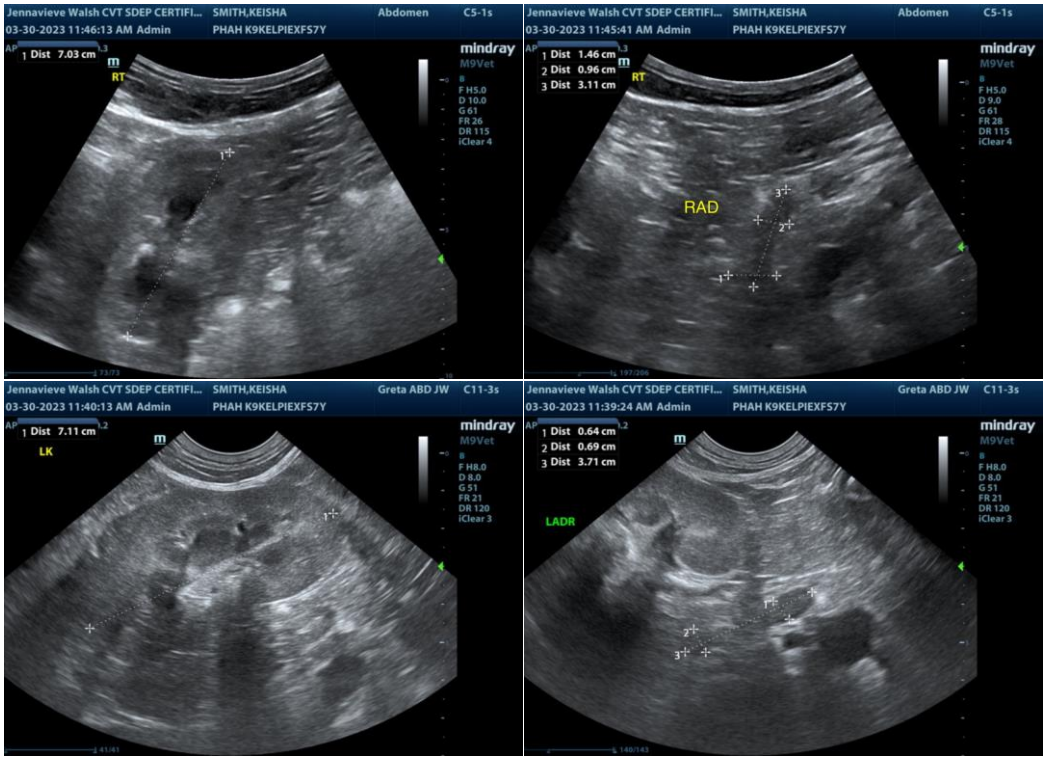

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@SonoPath.com