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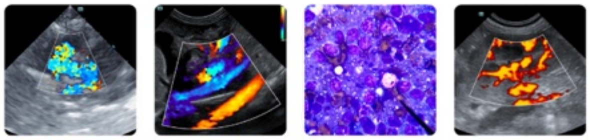


Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT
Brodie Krom

SPECIES
Canine

BREED
English Springer Spaniel

SEX
Intact male

AGE
15 months

WEIGHT
44.5 lbs

INTERPRETED BY
Alicia Angosto Guerrero, DMV, PgDip, MSc.

IMAGING PERFORMED BY
Justin Eckenrode DVM

HOSPITAL NAME
Carlisle Small Animal VC

REFERRING VET
Dr. Shamitko

INVOICE
74931

DATE
4/28/26

PRESENTING CLINICAL SIGNS

History: Major Medical Conditions : Elevated kidney enzymes, low USG, mild PU/PD
Patient History : P seen for pre-op exam/labwork for neuter and changes to kidney values noted. 4Dx negative for Lyme, anaplasmosis, and Ehrlichia. O did not initially report changes and at time of examination, but after discussion had noted some increase in drinking and urination for about 1 week. Appetite and energy level are normal per O. P is UTD on leptospirosis vaccine - no lepto testing done. Doxycycline treatment started prophylactically.
Primary concern or rule out: congenital kidney changes vs infectious vs other
Spayed/neutered: intact male
4/14/26: CBC/Chem - MONOCYTE 745 (736H); SDMA 39 (14H); CREATININE 3.5 (1.5H); BUN 66 (31H) 4/16/26: UA - USG 1.010; Protein 2+ - no UPC done

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended, with a thin and smooth wall. The urine is anechoic. The bladder neck and proximal urethra appear normal. No calculi or evidence of inflammatory or neoplastic changes are identified.

The left kidney measures 4.93×2.77 cm, with a cortical thickness of 0.52 cm in the sagittal plane. The right kidney measures 5.36×2.65 cm, with a cortical thickness of 0.58 cm in the sagittal plane. Both kidneys have a smooth, well-defined contour and are within normal size limits for a dog of this body weight (expected length approximately 5.0–7.0 cm in a medium-large breed). Cortical thickness is subjectively within normal limits to mildly increased (typical cortical thickness ~0.4–0.7 cm), without evidence of cortical thinning.

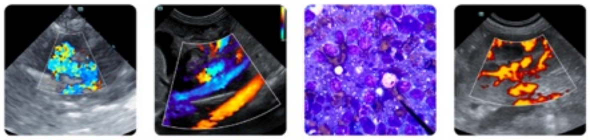
The cortex is diffusely hyperechoic relative to expected normal appearance. The medulla also demonstrates increased echogenicity, resulting in reduced corticomedullary distinction. The transition between cortex and medulla is poorly defined, although not completely lost. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

Prostate

Partially visualized; subjectively normal in size and echogenicity.

Adrenal Glands

Both adrenal glands show normal shape and echogenicity. Dorsoventral diameters measured in the sagittal plane: The left adrenal gland measures 0.46 cm at the cranial pole and 0.45 cm at the caudal pole. The right adrenal gland measures 0.39 cm at the cranial pole and 0.44 cm at the caudal pole.



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Spleen

Splenic thickness is 2.34 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

Liver

The liver is subjectively normal in size, with sharp edges and a regular contour. The liver parenchyma looks uniform and isoechoic compared to the falciform fat, with a normal echotexture. No hepatic lymphadenopathy is observed.

The gallbladder lumen is normally distended. The wall is thin and the contents are primarily anechoic No evident dilation of the cystic duct or common bile duct is observed.

Gastrointestinal

The stomach is empty and folded, with a wall thickness of 3.25 mm and preserved layering (within normal limits). The pylorus measures 6.65 mm, within expected limits. The duodenum measures 3.56 mm (within normal range ~3–5 mm). The jejunum measures 2.28–2.42 mm, within normal limits (~2–4 mm), with preserved wall layering. No evidence of inflammation, ileus, or foreign material is identified. The colon measures 1.26–1.30 mm, within normal limits, with formed feces in the descending segment.

Pancreas

The evaluated pancreatic regions do not show evidence of overt inflammation or neoplastic disease.

Free Abdomen

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The iliac trifurcation is normal.

PRIMARY FINDINGS

- Diffuse bilateral renal cortical hyperechogenicity
- Increased renal medullary echogenicity
- Reduced corticomedullary distinction

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The predominant finding is a diffuse increase in echogenicity affecting both cortex and medulla, with reduced corticomedullary distinction, consistent with bilateral parenchymal renal disease. The preservation of renal size and contour suggests a non-end-stage process, potentially active or progressive rather than chronic and quiescent.

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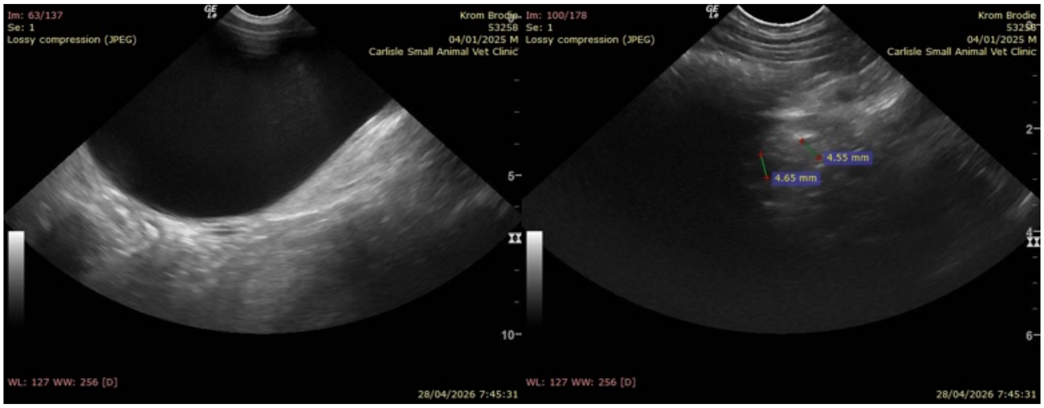
Given the breed, young age, azotemia, and isosthenuria, a hereditary glomerulopathy such as familial nephropathy must be considered a leading differential (English Springer Spaniel familial nephropathy, or Alport-like glomerulopathy). This condition is well described in this breed and can present at this age with progressive renal dysfunction while kidneys are still normal in size and not yet morphologically end-stage; The ultrasonographic findings are compatible with this stage of disease.

However, ultrasound findings are not specific, and other causes of diffuse renal parenchymal disease remain possible. These include acquired glomerulonephritis, infectious nephritis (including leptospirosis despite vaccination), and tubulointerstitial nephritis. The current imaging appearance does not strongly favor an acute infectious process, but it cannot be completely excluded by ultrasound alone.

Recommendations

- Quantification of proteinuria (UPC ratio) is strongly recommended. This is a critical next step to assess glomerular disease; significant proteinuria would strongly support a glomerulopathy, including familial nephropathy in this breed.
- Systemic blood pressure measurement.
- Serial monitoring of renal parameters (creatinine, SDMA), USG, and UPC.
- If marked proteinuria is confirmed and/or progressive renal dysfunction is documented, further work-up for glomerular disease should be considered. In this context, and given breed predisposition, renal biopsy may be required for definitive diagnosis, although this should be carefully weighed against clinical status and anesthetic risk.
- Infectious disease testing (including leptospirosis) may be considered only if additional clinical, epidemiological, or laboratory findings increase suspicion, as current imaging features are not strongly supportive of an acute infectious process.
- Pending results, early renoprotective management (dietary modification, RAAS modulation if proteinuric) may be indicated, under the direction of the attending clinician.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.



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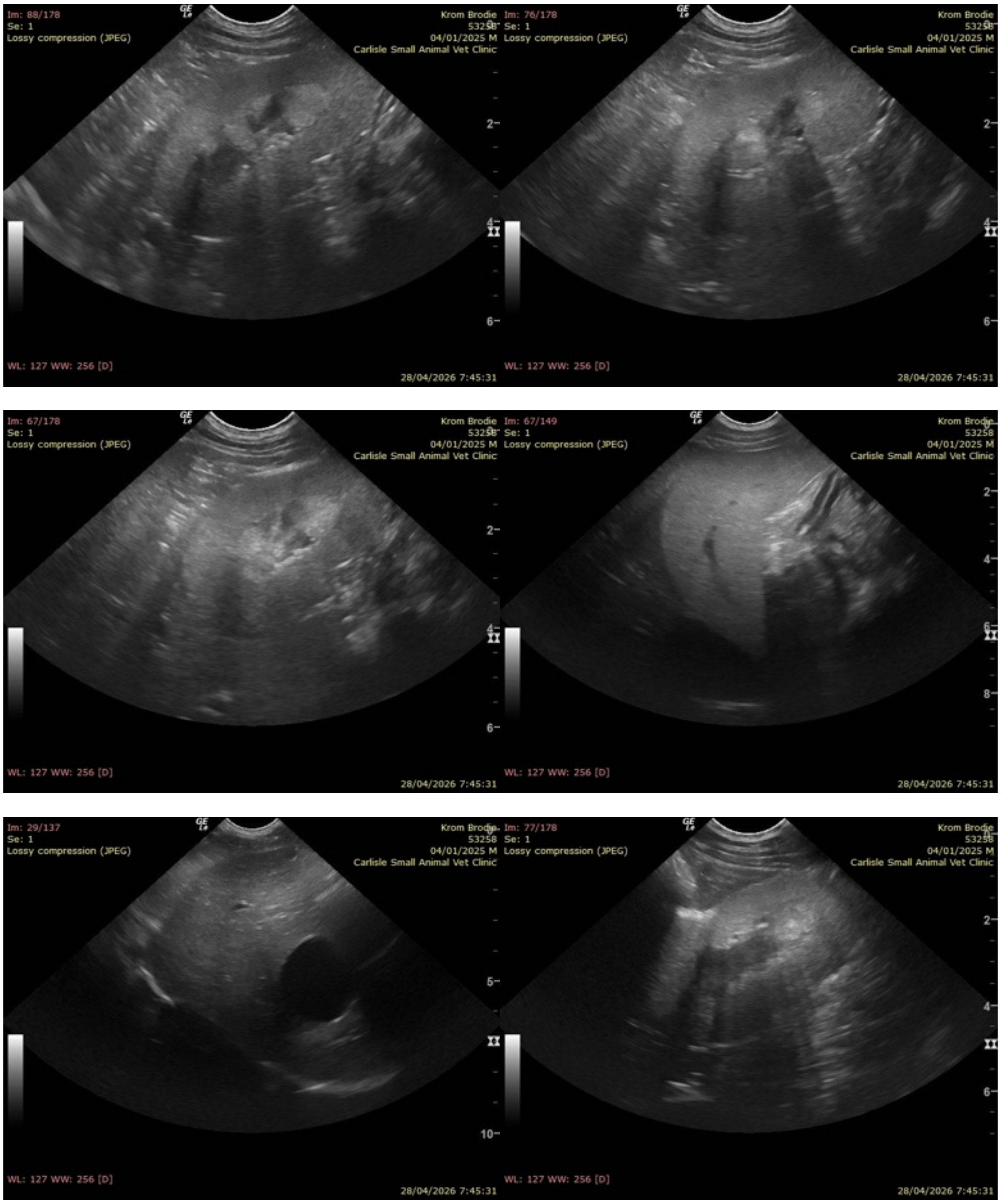

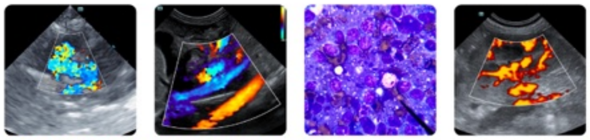

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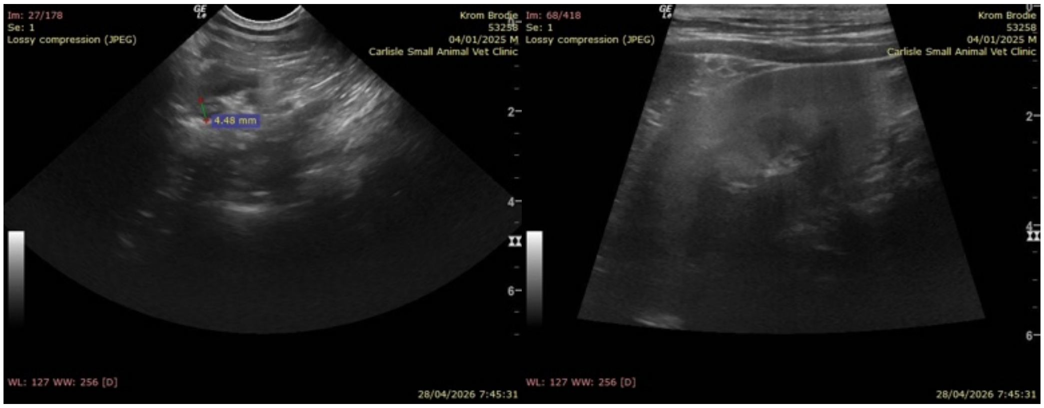

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

info@SonoPath.com