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Clinical Sonography & Telecytology
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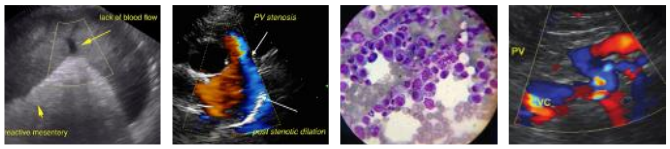

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Jamison Heath

SPECIES
Canine

BREED
German Shorthair

SEX
M

AGE
6mo

WEIGHT
14kg

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

IMAGING PERFORMED BY
Patti Mayfield DVM

HOSPITAL NAME
Patti Mayfield DVM

REFERRING VET
Kevin Long DVM

INVOICE
14533ag

DATE
08/08/2023

PRESENTING CLINICAL SIGNS

Puppy has been very small since birth and in the last couple of weeks the dog started having urinary accidents. Can urinate normal stream but will just walk around dribbling urine, owner thinks there is increased water intake but there are 3 other dogs in the house with shared water bowl. Dog is eating well with no vomiting or diarrhea. Bilateral cryptorchid Current treatments: -- IVF, Clavamox, then switched to Cefpodoxime following S results. Midazolam/Butorphanol used to facilitate AUS

Abnormal PE/Chem/CBC/UA Results: Urine collected via catheter, urine culture showed e. coli (>100,000/uL), S to all ABX CBC RBC 3.09 (5.39-8.7) HCT 25.2 (38.3-56.5) HGB 7.9 (13.4-20.7) MCV 82 (59-76) MCHC 31.3 (37.6-39.2) No reticulocytosis Chemistry SDMA 17 (0-14) Creat 2.4 (0.5-1.5) BUN 53 (9-31) Phos 10.6 (2.5-6.1) Total Protein 5.3 (5.5-7.5) Albumin 2.6 (2.7-3.9) ALT 16 (18-121) Amylase 1,510 (337-1469) No USG, nor UA was performed, by accidental oversight.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths, mineral or sediment. Iliac vasculature noted on the area of the ureteral papilla.

Adequate size and symmetrical margination were present in the kidneys. A normal 1:3 cortex / medulla ratio with mild non-uniform increased corticomedullary echogenicity was present. Mild to moderate loss of corticomedullary definition was present. Bilateral mild to moderate pyelectasia was present. No evidence of contrast within the dilated left/right renal pelvis. Subtle increased echogenicity of the peripelvic tissue was present. No evidence of hydroureter. The left kidney measured 5.7 cm in length. The right kidney measured 5.6 cm in length.

The area of the aortic trifurcation was free of pathology.

The prostate gland exhibited subjective borderline increased compared to normal. Symmetrical capsule contour and homogenous parenchyma with thinly walled prostatic cysts were present. An example of a prostatic cyst measured 1.2 cm in diameter. The overall prostate gland measured 1.9 cm in diameter.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.31 cm width at the caudal pole and 2.5 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.47 cm width at the caudal pole and 2.1 cm length.

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.

Liver/Gallbladder

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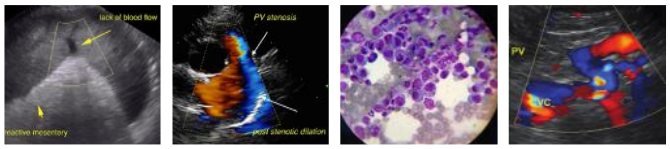

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The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. Normal vascular volume. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. 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 contained moderate non-shadowing ingesta consistent with food 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.

The retained testicles in this patient were not definitively visualized.

ULTRASONOGRAPHIC FINDINGS

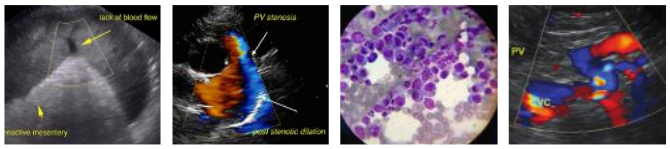
- Bilateral chronic nephropathy with mild to moderate bilateral pyelectasia.
- Sonographically unremarkable urinary bladder-no overt evidence of congenital abnormality i.e., ectopic ureter.
- Borderline prominent prostate gland size with prostatic cysts.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the young age of the patient, the bilateral kidneys are most suggestive of renal dysplasia with potential for pelvic scarring. Without evidence of echogenic contrast within the dilated renal pelvis or overt evidence of peripelvic inflammatory criteria, bilateral pyelonephritis or other non-specific nephritis is considered less likely yet cannot be definitively excluded.

Prostatic sampling via ultrasound guided prostatic cyst fluid drainage with FNA for cytology +/- C/S may be considered for further definition. If possible, ultrasound guided pyelocentesis for C/S of urine directly from the dilated renal pelvis. A renal surgical biopsy is required for a definitive diagnosis. Although there is no definitive lower urinary tract congenital defect, the possibility of a small ectopic ureter may be difficult to visualize sonographically and cannot be definitively excluded in light of patient history.

Excretory urography or gold standard CT with contrast may be considered for further clarification. Referral is suggested given the multiple abnormalities in this patient.



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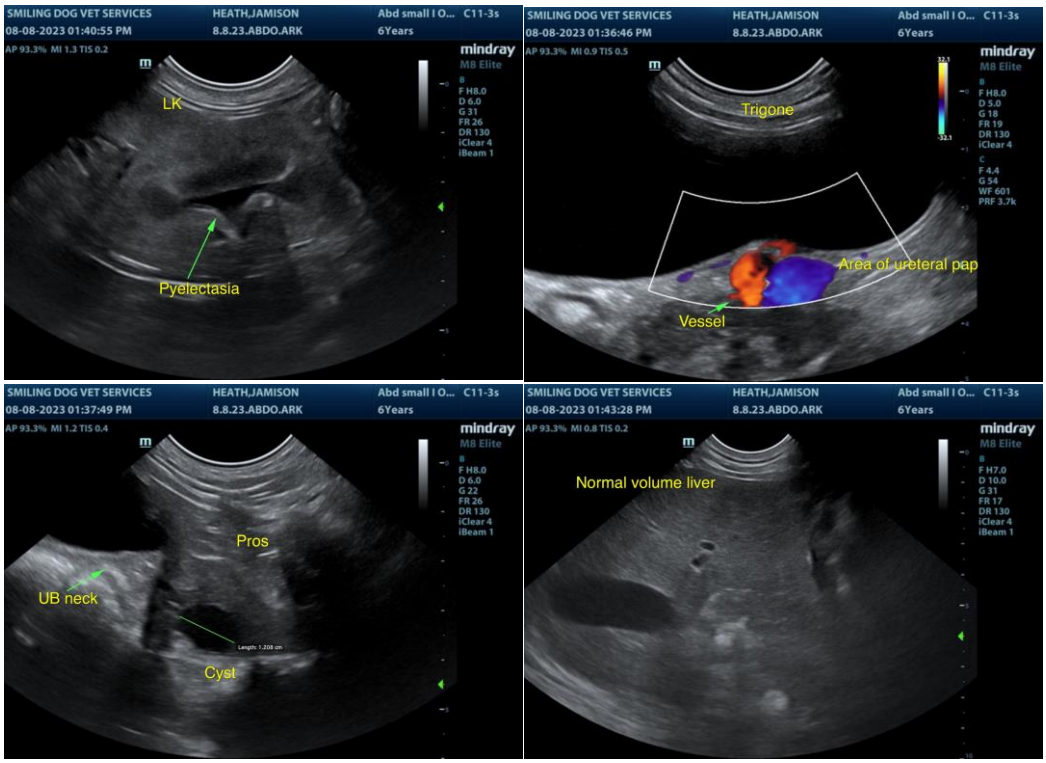
Correlation with full UA and baseline UPC if evidence of proteinuria given quiet urinary bladder sediment is suggested.



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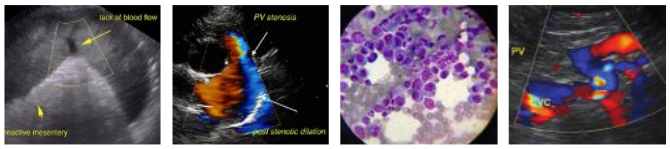

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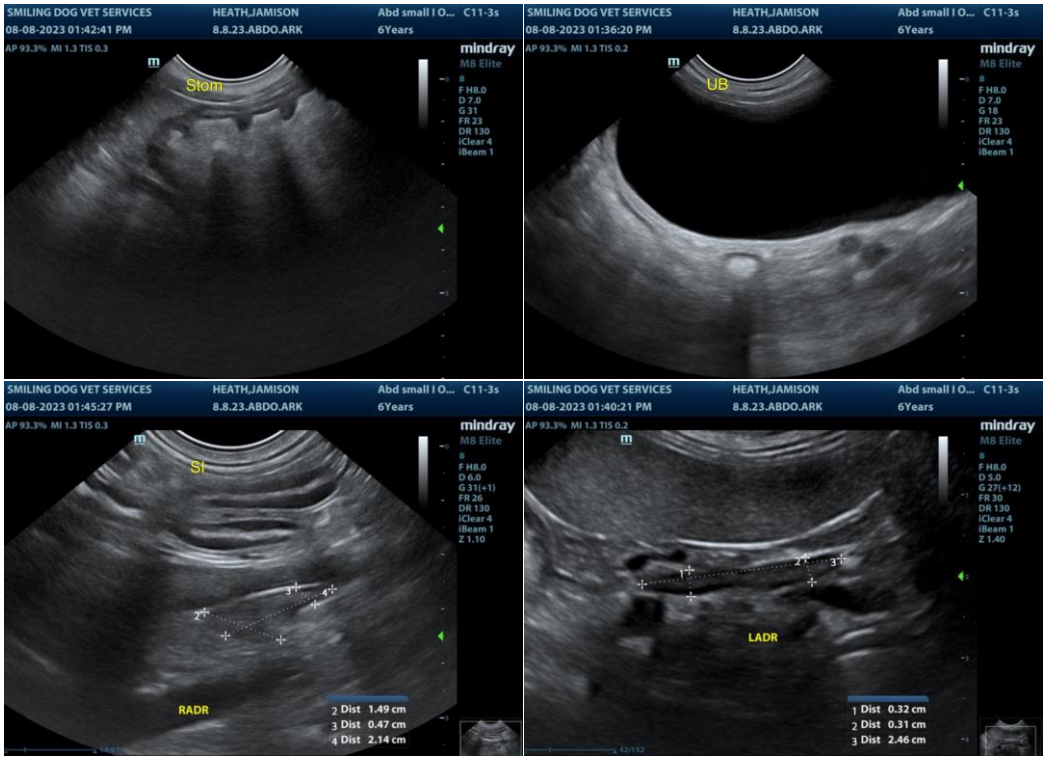

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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