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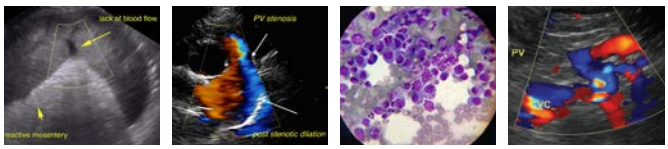

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1-800-838-4268 info@sonopath.com

PATIENT

Cooper Castro Caceres

SPECIES

Canine

BREED

Whippet

SEX

Intact Male

AGE

7 Years

WEIGHT

39 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Ferrer

HOSPITAL NAME

Paseos Vet Center

REFERRING VET

Dr. Ferrer

INVOICE

44054

DATE

1/7/23

PRESENTING CLINICAL SIGNS

The patient presented as walk-in for evaluation as pt has been having difficulty urinating and seems painful. Pt has been having hematuria and acting strange and depressed. This has been going on for 3 days. Also, pt has a history of eating an entire pork ham recently. After abd ultrasound a urinary catheter was placed and unblocked. Started IV fluids and unasyn and enrofloxacin while pending urine culture.

Abnormal PE/Chem/CBC/UA Results: PE: Quiet, depressed, and seems painful. Mild - moderate abdominal distension and pt is uncomfortable when palpating the abdomen. BW: BUN CBC: neutrophils 13.8 Azotemia, Creat 3.4 (0.5 - 1.8 mg/dL) BUN 54 (7 - 27 mg/dL) Amylase 1,795 (500 - 1,500 U/L) Lipase 3,694 (200 - 1,800 U/L) U/A: USG: 1.018 RBCs 4+, WBC 2+ Urine culture: Pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately subjectively overdistended with anechoic contents. No masses or inflammatory changes. Multiple/too numerous to count cystoliths are noted, ranging in size from 0.3-0.8 cm, with multiple small cystoliths noted within the intraprostatic urethra. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is symmetrically enlarged (3.84 cm thick) 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 or cysts are noted.

The right kidney is normal in size (7.7 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 mineral or infarcts observed. Pyelectasia noted at 0.37 cm in the transverse view.

The left kidney is normal in size (7.35 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 mineral or infarcts observed. Pyelectasia noted at 0.44 cm in the transverse view.

Adrenal Glands

The right adrenal gland is unable to be well visualized in these images, but the area is examined without evident adrenal gland pathology.

The left adrenal gland is normal in size (2.43 cm long x 0.70 cm at the cranial pole and 0.71 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

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.

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.

The 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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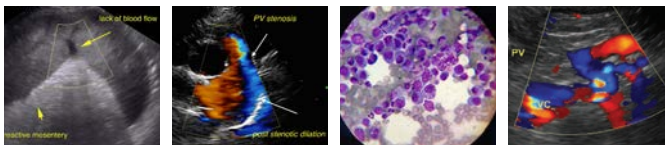

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Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) 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 (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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 (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

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.

Free Abdomen

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.

There is a small to moderate amount of anechoic free fluid as well as hyperechoic enhanced mesenteric fat surrounding both kidneys.

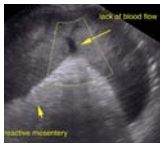
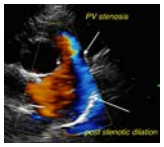
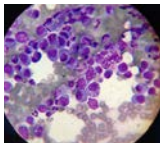
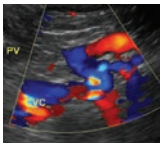
ULTRASONOGRAPHIC FINDINGS

- Multiple cystoliths, some of which are in the position to have obstructive potential
- **Bilateral pyelectasia –** Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- **Free fluid and enhanced mesenteric fat surrounding the kidneys** – suggestive of kidney inflammation/nephritis, possibly secondary to an acute lower urinary tract obstruction. A current pyelonephritis is suspected.
- **Benign Prostatic Hyperplasia –** 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The pathology noted above, including the evidence of inflammation surrounding the kidneys, is all consistent with a lower urinary tract obstruction caused by the cystoliths, as well as potentially benign prostatic hyperplasia, and suspected pyelonephritis. Mild pancreatitis can't be ruled out but there is no visible evidence of it ultrasonographically.

Recommendations include alleviating the urinary obstruction, as was reportedly already done, obtaining sterile urine for a culture, which is reportedly pending, and then ultimately trying to medically

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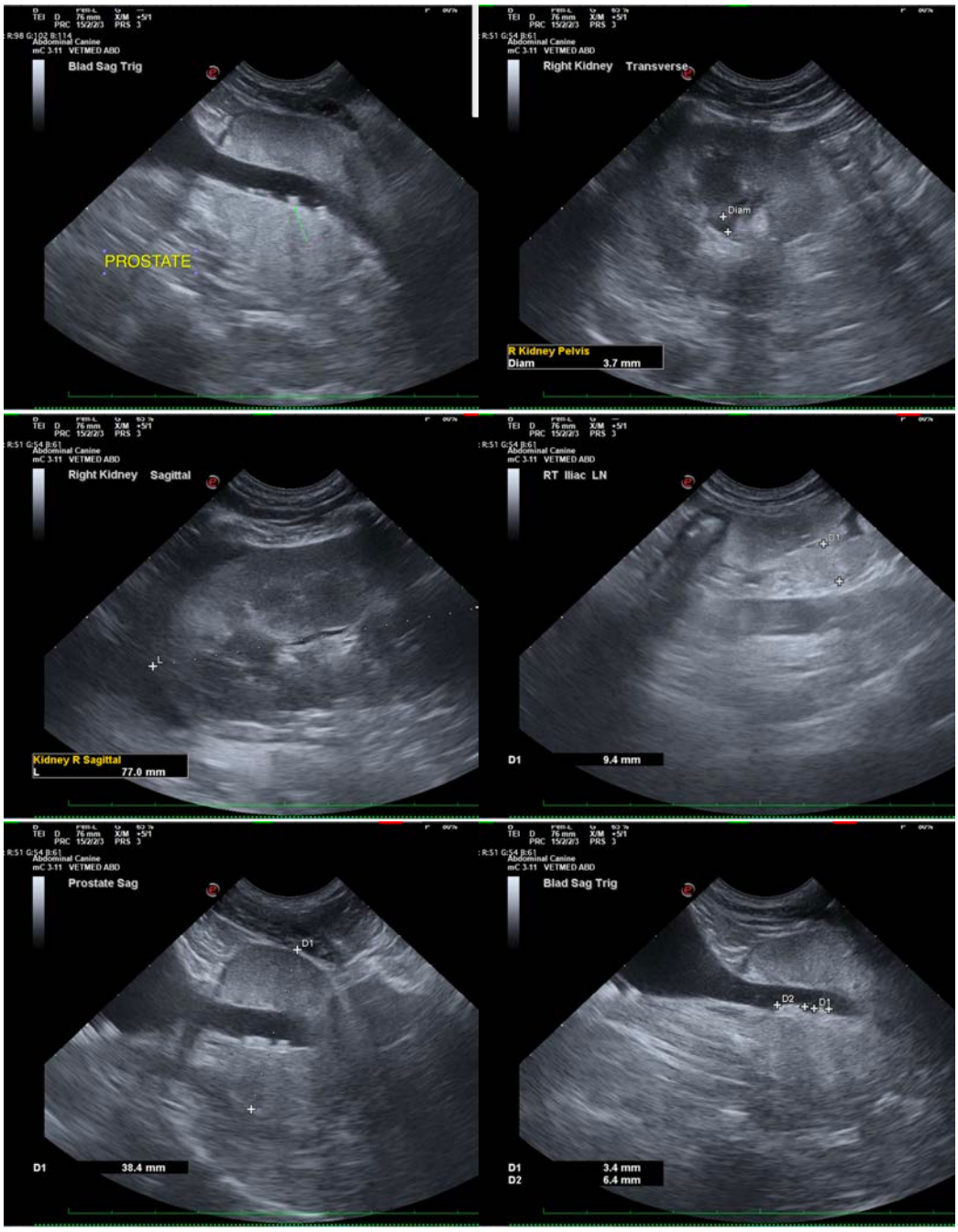
dissolve stones if that is suspected to be possible based on urinalysis and urine culture results, and/or attempting to retrieve stones via a bladder flush/urohydropropulsion, or ultimately even cystotomy for stone analysis/identification, which will help further direct future medical management.

Additionally, patient neuter is recommended to prevent ongoing clinical signs and progression of suspected benign prostatic hyperplasia.



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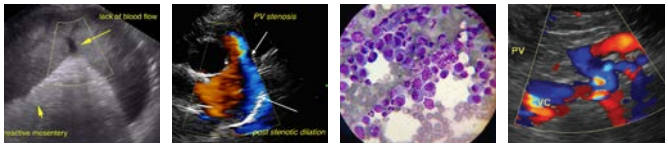

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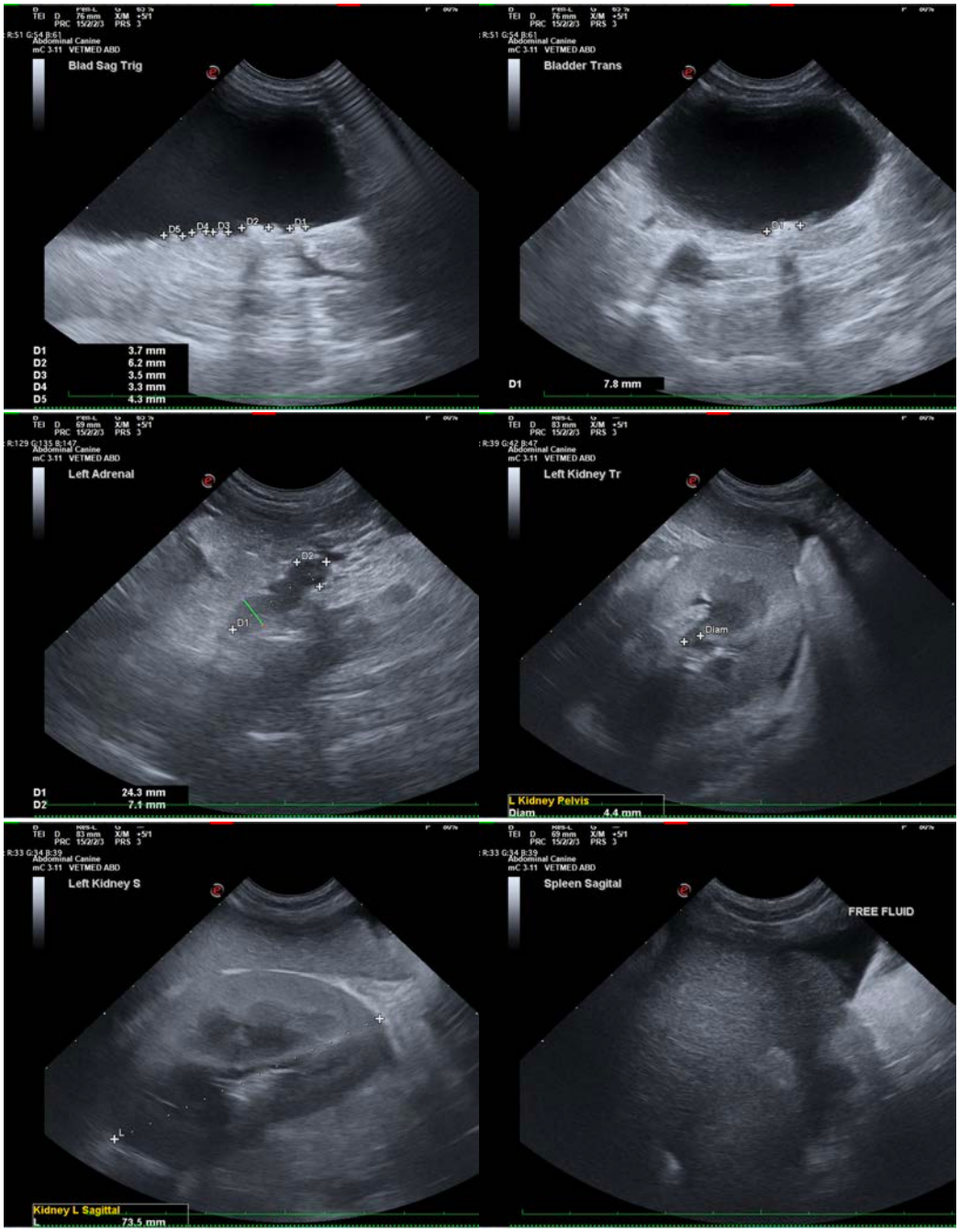

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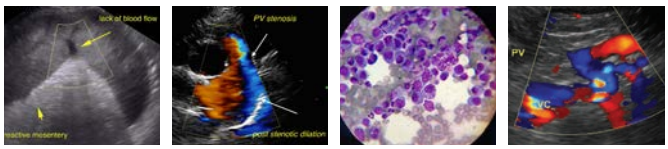

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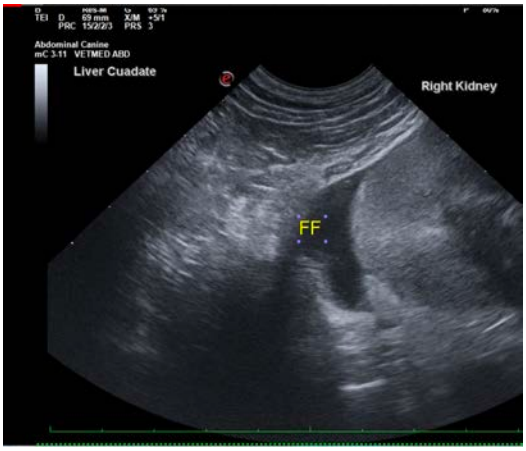

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com