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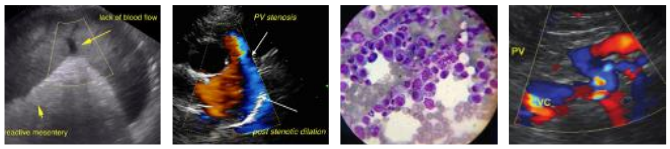

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1-800-838-4268 info@sonopath.com

PATIENT

Buddy Smilkstein

SPECIES

Canine

BREED

American Pit Bull Terrier

SEX

Neutered Male

AGE

14 Years

WEIGHT

28 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Callihan

HOSPITAL NAME

Animal Emergency Care

REFERRING VET

Dr. Ryan

INVOICE

21299

DATE

2/28/23

PRESENTING CLINICAL SIGNS

History: S: Buddy presented as a transfer from rDVM for tremors, lethargy, acute onset abdominal pain, and fever (105.0). Patient has remained dull/depressed all day and has received IVF and amp/sublactam with minimal improvements in mentation/temperature. rDVM History: Buddy diagnosed with Stage 3 + renal failure and Pancreatitis about one month ago. Normal but high end BP obtained at that time. Has been eating and drinking well up until today. But has a history of abdominal pain and not eating well in the past. Buddy started receiving SQ Fluids last week. He has generally been doing well and tolerating their administration well. He also has started the Phos bind medication as well as Kidney food No access to any pesticides, medications or other toxins or supplements around the house. Owner had noted increased itching in the past few days-week and started fish oil He seems very itchy and is licking the right side of his abdomen a lot in the past 24 hours. Buddy had SQ Fluids administered at home last night. He ate and drank normally but starting later yesterday evening he started to have some fully body tremors and seemed to have some abdominal pain- no vomiting. No diarrhea and no retching. Today he woke up with more tremors. Showed no interest in eating and seemed painful. Continued to lick/itch at right side. Owner thought he was cold so kept him wrapped up in a blanket and inside. We had advised her to give 300mgs of Gabapentin (he has had this before) and within a few hours he was non-mobile, very lethargic and she thought he was completely obtunded from the meds. BP (doppler) 200mmHg HR: 160 no murmur/arrhythmia; pulses SS RR: 28 eupenic mm injected Neuro: Depressed mentation but responsive and no CN signs detected; patient not ambulatory; MS: nonambulatory; mild spinal pain. Int: ventral abd lichenified, worse right flank moist dermatitis.

Abnormal PE/Chem/CBC/UA Results: Full bloodwork and thoracoabdominal radiographs were done @ rDVM which showed mild azotemia (creat 3.2, BUN 64), hyperamylasemia, and mild lymphopenia. Radiographs show no major abnormalities. TFAST showed consolidation in the right ventral middle lung field

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Kidneys are bilaterally uniformly enlarged/swollen (left kidney measures 8.4 cm, right kidney measures 8.4 cm) with an overall hyperechoic echogenicity and slight loss of corticomedullary definition. Normal smooth peripheral margination and shape are maintained. The renal pelvis is dilated with anechoic fluid and hyperechoic thickened pelvic fat. No overt evidence of neoplasia or mineral is observed. The perinephric area is enhanced by hyperechoic fat and mesentery. Both kidneys have pyelectasia. Pyelectasia in the left kidney measures 0.71 cm in the transverse view. Pyelectasia in the right kidney measures 0.9 cm in the transverse view. Cortical cysts are noted bilaterally, the largest of which measures 2.0 cm in the caudal pole of the right kidney.

Adrenal Glands

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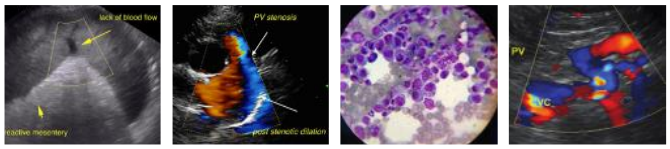

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Left adrenal gland is normal in size (0.77 cm at cranial pole and 1.05 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (1.3 cm at cranial pole and 0.87 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

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

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.

Gallbladder is moderately distended with anechoic bile as well as mild 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.

Gastrointestinal

The visible stomach wall is normal in thickness 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. 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 and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

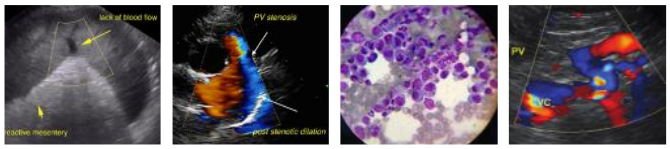
Free Abdomen

There is no evidence of peritoneal effusion. The sublumbar 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. Two representative nodes measure 1.0 cm, and 1.3 cm thick.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Pyelonephritis – These changes are most consistent with chronic pyelonephritis. Chronic scarring and fibrosis and/or chronic nephrolith passage can also result in these pelvic dilation changes. Early infiltrative disease cannot be ruled out but is considered less likely.



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- Reactive sublumbar lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

Secondary Findings

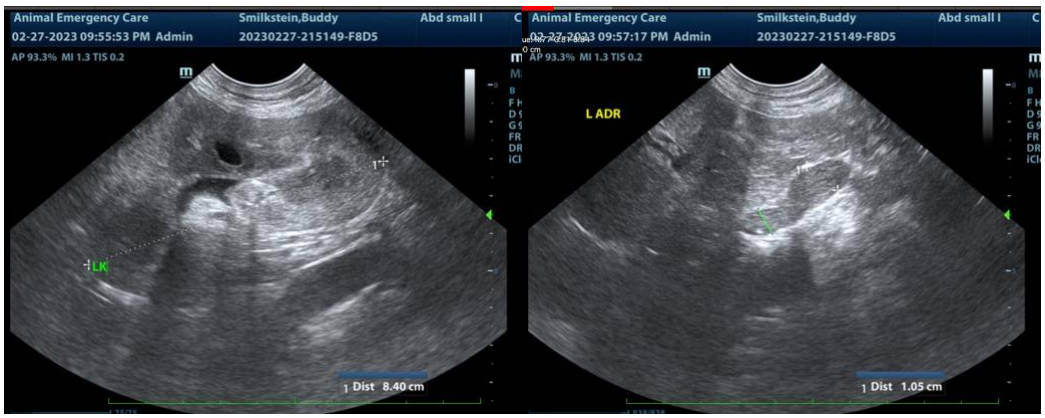
- Urinary bladder debris
- Mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

One possible differential, given these images, for the patients acute decline, fever, azotemia, etc., is pyelonephritis or an acute on chronic infection. Therefore, recommendations include urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended, as well as testing for Leptospirosis, if not recently evaluated.

Additionally, while pyelonephritis can be uncomfortable, it's typically not as severe pain as is seen with orthopedic and/or especially spinal pain. Therefore, given this patients concurrent reported spinal pain, combined with the fever that isn't responding to antibiotics, additional infectious disease, including potentially discospondylitis, etc., could be another consideration and advanced imaging of the spine, such as an MRI may be helpful.

Additionally, if not already evaluated, 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).



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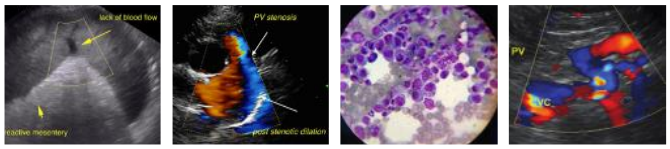

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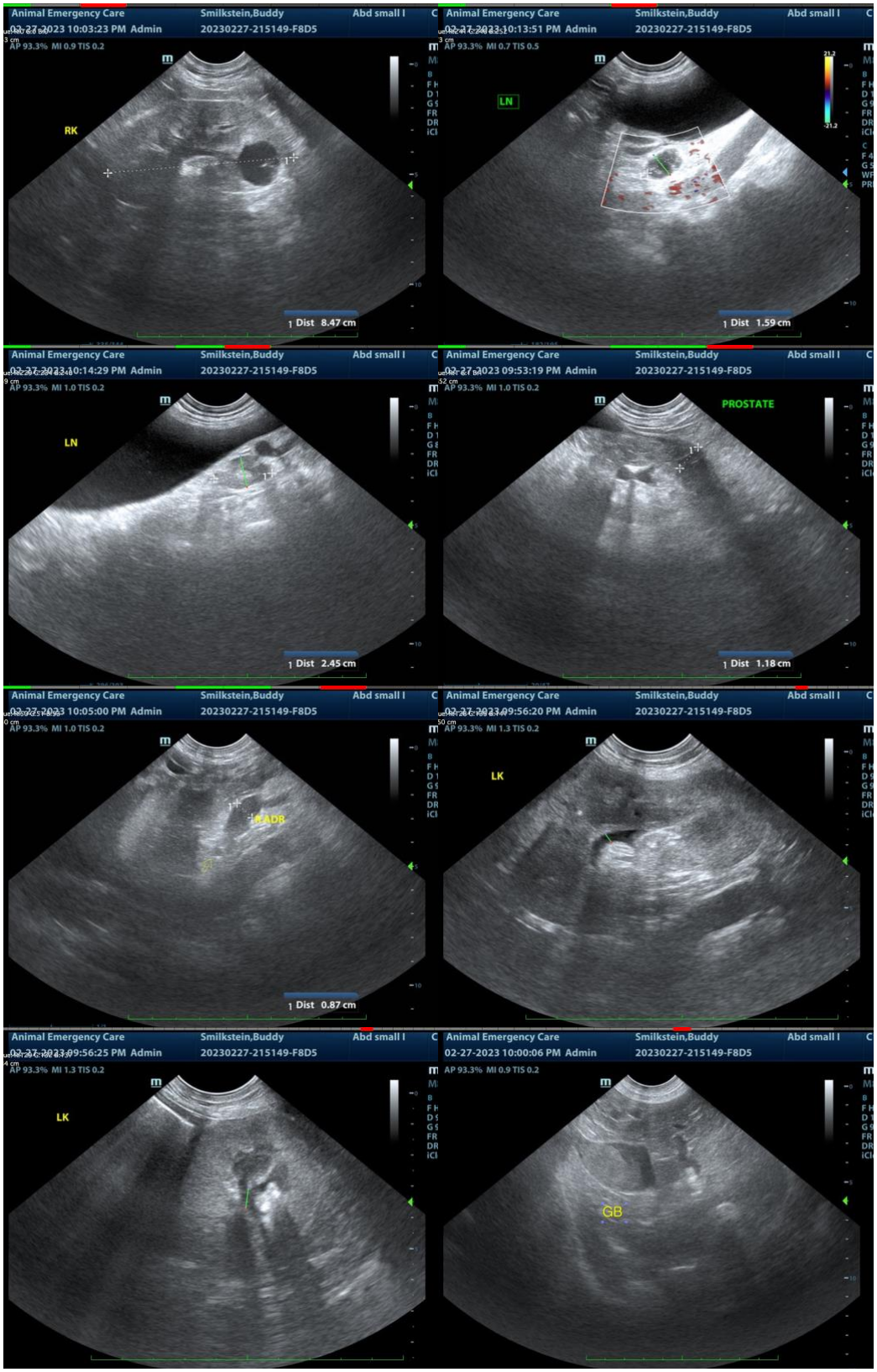

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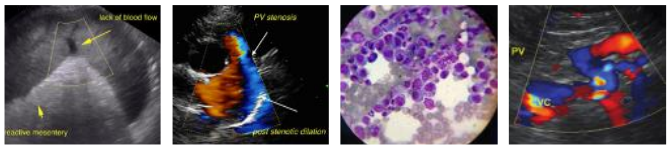

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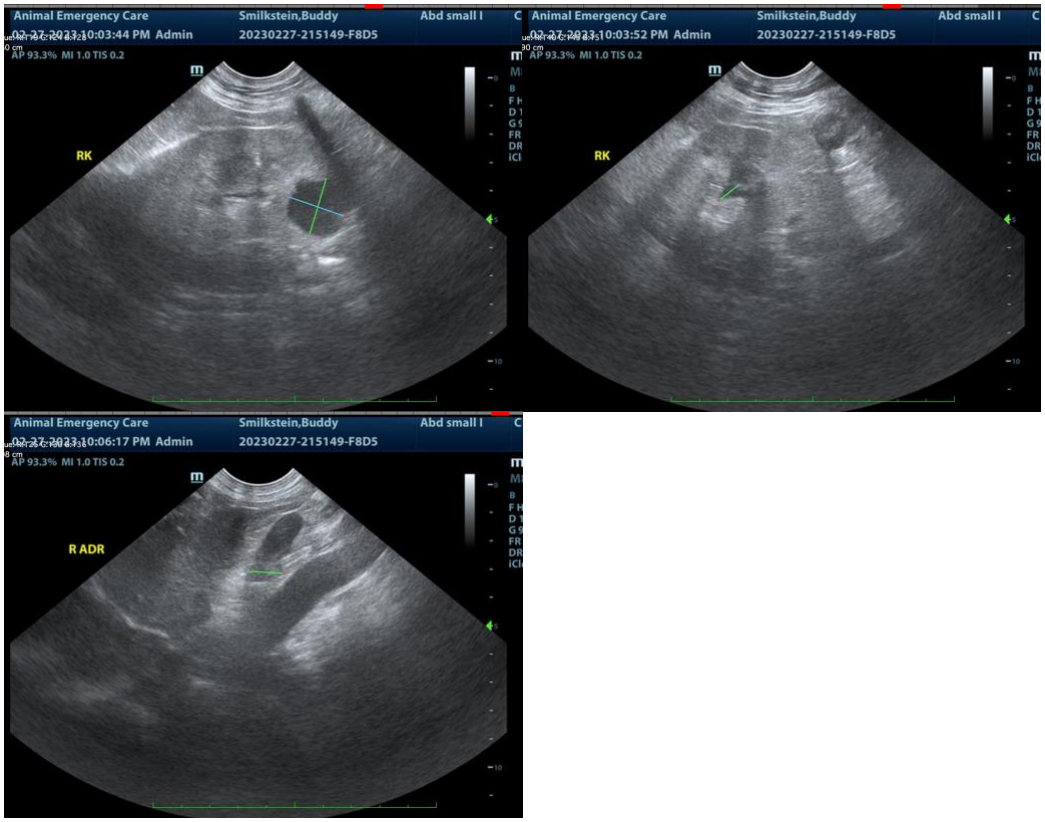

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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