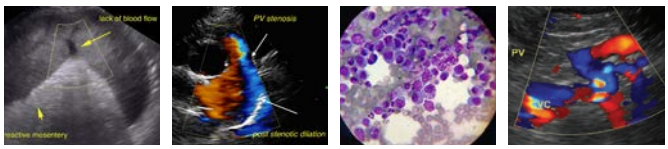
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Tug Rislove

SPECIES
Canine

BREED
Bulldog

SEX
Neutered Male

AGE
11 Years

WEIGHT
71 Pounds

INTERPRETED BY
Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY
Brian Klug

HOSPITAL NAME
Sondel Family VC

REFERRING VET
Dr. Kara Wallisch

INVOICE
46325

DATE
3/30/23

PRESENTING CLINICAL SIGNS

Presented for exam before a dental on 3/14. Mentioned that he'd been a little more lethargic lately, thought his arthritis was acting up. Ran pre-op BW, came back with very high kidney values. Started kidney diet, pushing fluids intake, and recheck of BW in 2 weeks. Otherwise not PU/PD. Gained 7 lbs from 3/14-3/29 (water weight?) Seems weaker, lethargic, more tired. Owners say since 3/14, he occasionally falls down- wondering if arthritis related or something else going on.
Abnormal PE/Chem/CBC/UA Results: PE: BCS 9/9 obese, dental disease 4/4 with heavy tartar/gingivitis, arthritic. BW on 3/14: Cr 3.5, BUN 65, SDMA 21.5, Phos 6.3, rest WNL BW on 3/29: Cr 2.4, BUN 35, K 6.4, rest WNL Chest xray: nsf Abd xray: no obvious abnormalities

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are normal in size and contour. A relatively uniform hyperechogenicity is observed with mildly decreased corticomedullary distinction. No mineral is observed. No overt masses/nodules are observed. Small bilateral cortical cysts and bilateral pyelectasia noted. The left kidney measures 4.95 cm. The right kidney measures 6.32 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.42 cm at the cranial pole and 0.84 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.69 cm at the cranial pole and 0.82 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.

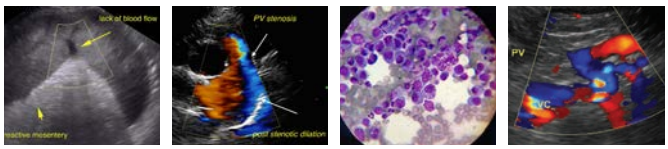
Liver

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.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.



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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

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Nephritis –** This appearance can be consistent with chronic interstitial nephritis or glomerulonephritis. Toxic insult and/or infectious disease (pyelonephritis, Leptospirosis, etc.) cannot be ruled out. This finding should be interpreted in combination with suspicion for renal disease and/or supporting laboratory or urinalysis changes.

- **Bilateral pyelectasia –** Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction. **This patient is on fluids and the pyelectasia could be secondary to that.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urinalysis results prior to fluids are important to help interpret and make recommendations about the mildly improving azotemia combined with the reported weight gain. If this patient's percent dehydration upon initial presentation matches or is even higher than the patient's percent body weight gained so far, and patient is making an adequate amount of urine, then that weight could be appropriate, as rehydration is being maintained and azotemia is improving and may continue to do so. However, that much weight gain could also mean that extra vascularization of fluids is occurring, and/or patient is becoming fluid overloaded, or could indicate decreased urine production, Regardless, the persistent azotemia is more concerning than the first scenario.

A 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 a blood pressure if not recently evaluated. Additionally, testing for Leptospirosis is recommended. Additionally, a baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism. Ultimately, persistent kidney disease is likely going to be present, and consultation with a veterinary internist regarding both acute and long-term management options may be helpful.

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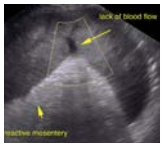
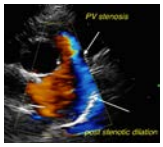
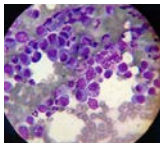
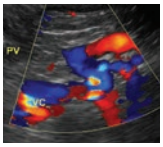

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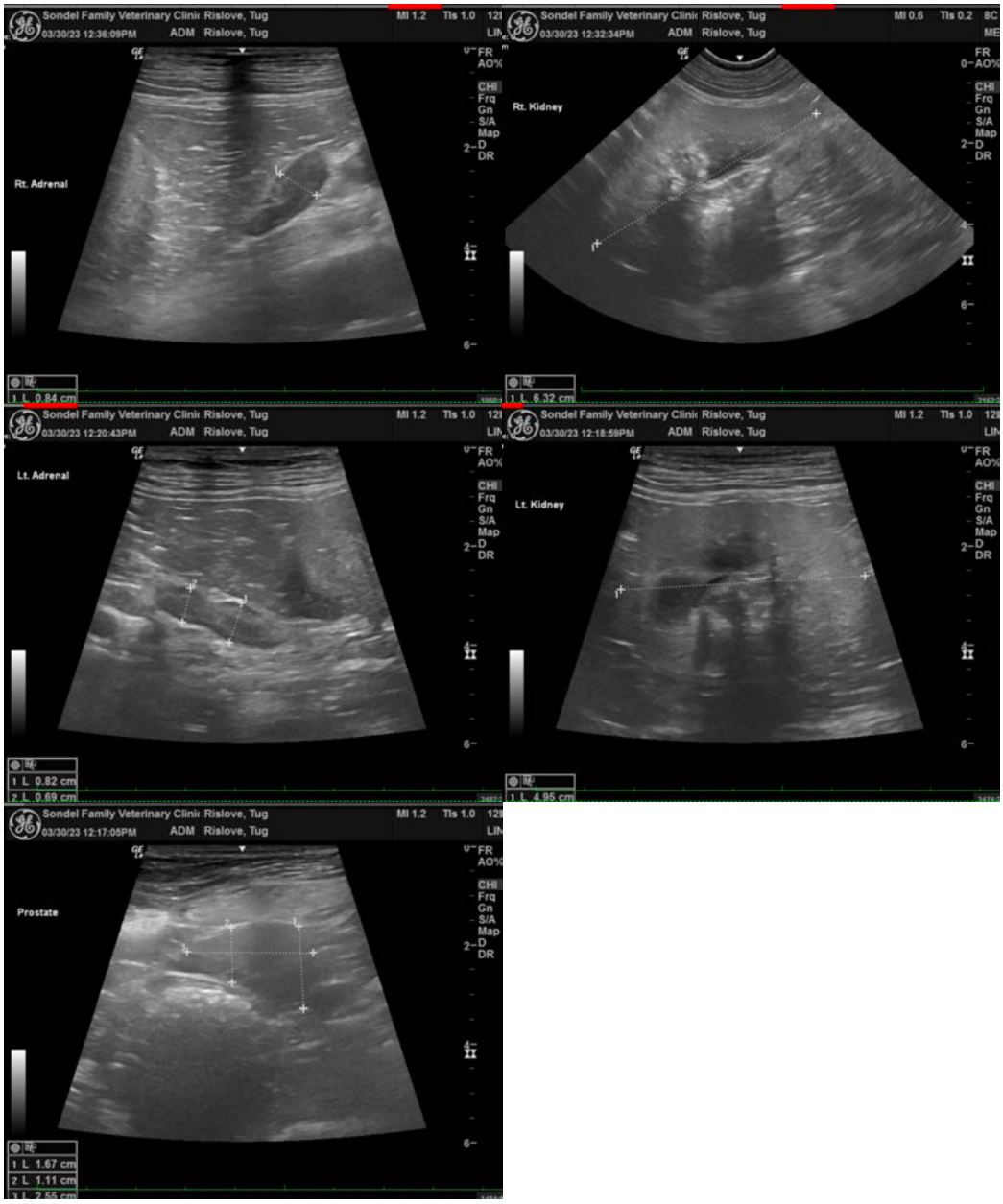

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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