

**DATE PRESENTING CLINICAL SIGNS**

1/19/23

P presents for abdominal ultrasound for investigation of hematuria. P was seen in Aug of 2022 for trouble getting around and hind end pain, it was determined on PE that P likely is having trouble secondary to advancing osteoarthritis. Labwork was done at that time and found to have Creatinine 2.8, BUN 53, no other abnormalities. P did not have clinical symptoms of kidney disease at that time and was started on galliprant for arthritis on top of his already given dasuquin. P was doing well until 2-3 weeks prior when he started having blood in urine and was brought in for evaluation 1/10/23. No pollakiuria, stranguria, or polyuria noted. Blood is seen always mid to late stream. P also has a variable appetite. On PE 1/10 a new heart murmur grade 4/6 systolic was appreciated, BCS 7/9, significant decreased ROM bilateral hindlimbs. Urine obtained via cysto had red-brown appearance.

PATIENT

Diesel Reese

SPECIES

Canine

BREED

Pit Bull

SEX

Neutered Male

AGE

3/6/13

WEIGHT

82.2 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**HOSPITAL NAME**

Everhart Vet Hospital

REFERRING VET

Dr. Baumler

INVOICE

44386

Current Medications: Galliprant 100mg tab 1SID PO since 8/6/22
Dasuquin advanced -- 1chew SID PO

Lab Results: 1/10/23: UA: USG 1.030, brown, turbid, protein 3+, blood 3+, rbc 21-50. No bacteriuria or pyuria. CBC: NSF. Chem: creatinine 2.7, BUN 62, SDMA 28.6. 8/4/22: CBC: NSF. Chem -- Creatinine 2.8, BUN 53

Radiographs: 8/3/22 abdomen and spine: Radiographs reveal spondylosis of thoracolumbar spine and one large circular, well-circumscribed lesion in caudal lumbar spine that is concerning for neoplasia vs very progressed arthritic change

Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.
Imaging Performed By: Rachel Brillhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is adequately distended, possibly subjectively mildly overdistended with anechoic contents and a very large amount of echogenic, partially mineral/sand debris, both suspended and gravity dependent. No distinct cystoliths are observed. No masses are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is normal in size (0.9 cm wide), echotexture and echogenicity for a neutered male.

The right kidney appears as a 7.2 cm x 6.4 cm structure with very little normal renal architecture noted. The structure is a mixed heterogeneous mass, characterized by hyperechoic shell and multifocal anechoic/cystic regions filled with what appears to be echogenic fluid.

The left kidney is more normal in appearance and measures 7.77 cm in size. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. Mild pyelectasia noted at 0.34 cm in the sagittal view. There is no evidence of mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is normal in size (3.2 cm long x 0.88 cm at the cranial pole and 0.87 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 (3.47 cm long x 0.64 cm at the cranial pole and 0.96 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.

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 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

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

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Large anechoic, fluid-filled structure in the area of the right kidney** – This could represent a hydronephrosed right kidney secondary to a previous ureterolith or potentially stricture or even blood clot. However, no hydroureter is noted in these images to support that. Other differentials are complicated renal cysts or even abscesses and/or infiltrative neoplasia.

SECONDARY FINDINGS

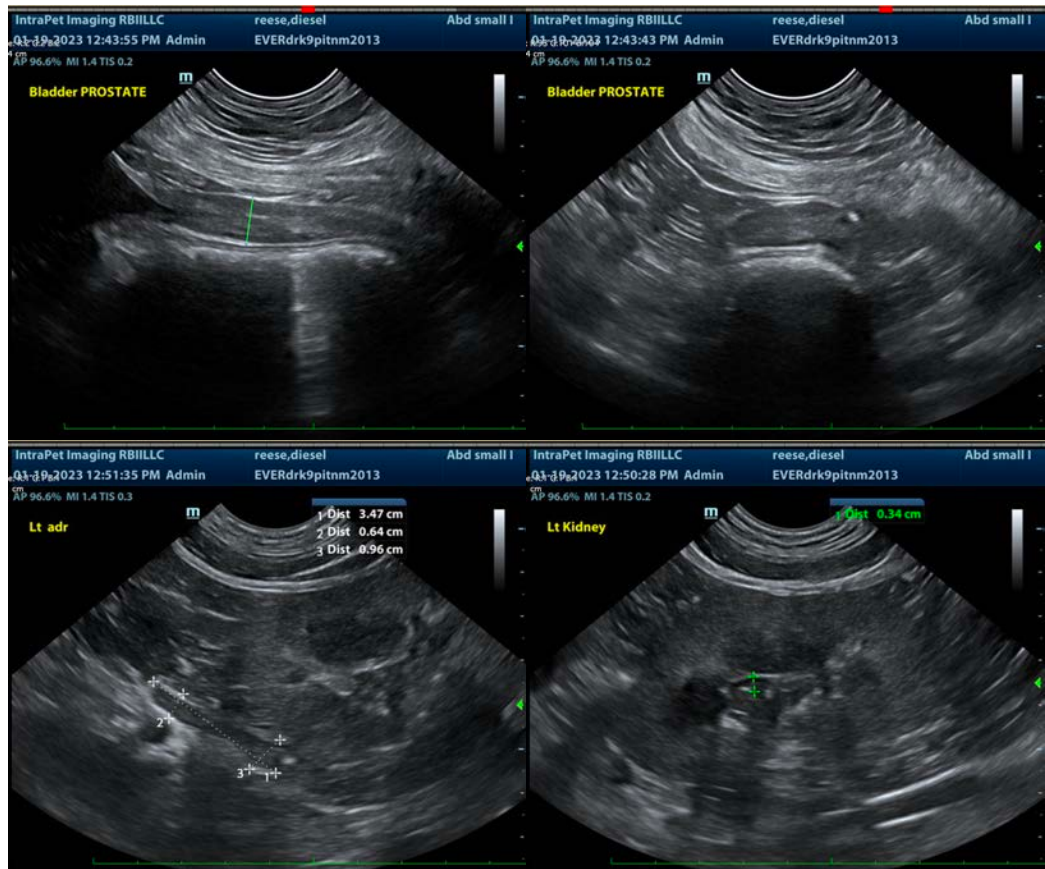
- Very large amount of urinary bladder debris
- **Mild gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an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

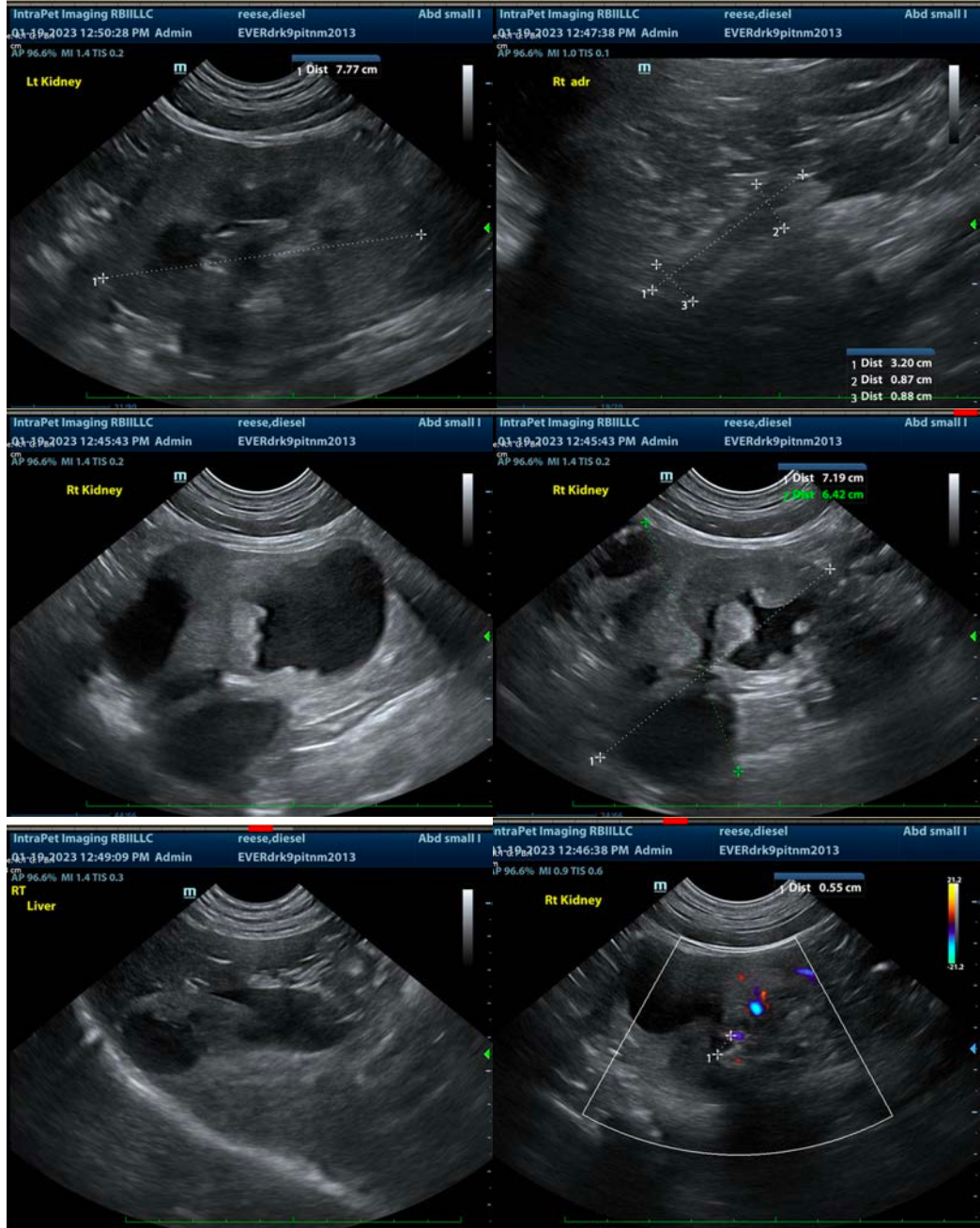
combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

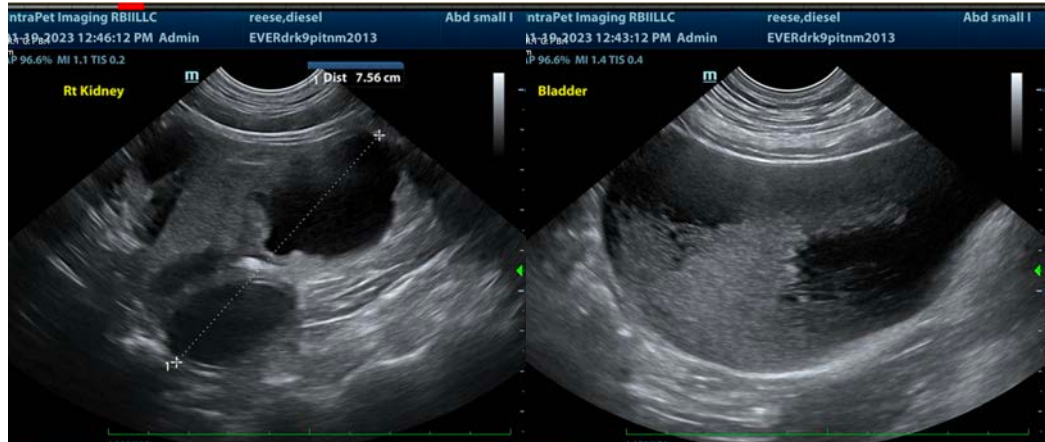
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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.

A fine needle aspirate of the right kidney for both cytology as well as culture and sensitivity is recommended if patient's coagulation status is appropriate, or alternatively, given the lack of visible normal kidney parenchyma, an exploratory laparotomy for planned nephrectomy of the right kidney could be pursued. If the surgical option is elected, a pre-surgical planning abdominal CT scan should be considered.







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.

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