

**DATE PRESENTING CLINICAL SIGNS**

6/28/23

Possible chronic pyelonephritis vs renal dysplasia vs combination. Presented to Pet ER in Feb 2023 2 weeks after adoption with fever, acute lethargy anorexia. Diagnosed with UTI, treated over subsequent month with Clavamox and amoxicillin but infection was not cleared. rDVM placed on cefpodoxime and has not had lower urinary tract signs since then. However, USG was initially 1.040 in Feb and has since been isosthenuric to minimally concentrated. Recent labs at rDVM showed new azotemia. rDVM felt kidneys looked abnormal on US.

PATIENT

Kaia Shanahan

SPECIES

Canine

BREED

Golden Retriever

Current Medications: None listed.

Lab Results: 6/20: UA--USG 1.011, pH 6.5, trace protein, 8 RBC (cysto), quiet sediment otherwise
CBC--Lymphs 6.3K. Chem--SDMA 19, creat 2.4, BUN 59, phos 8.2. Today: creat 2.2, BUN 47, phos 7.9

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By:

SEX

Intact Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**AGE**

12/2/22

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.

WEIGHT

22.7 kg

Kidneys are bilaterally small, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. No mineral is observed. The left kidney measures 5.84 cm. The right kidney measures 5.8 cm. Pyelectasia is noted measuring 0.74 cm in the left kidney (transverse view) and 0.53 cm in the right kidney (sagittal view).

INTERPRETED BYBeth Johnson, DVM
DACVIM**Adrenal Glands**

The right adrenal gland is normal in size (0.66 cm at the cranial pole and 0.59 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Nexus Vet Specialists

The left adrenal gland is normal in size (0.35 cm at the cranial pole and 0.41 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Steele

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.

INVOICE

43549

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 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.

The mesenteric 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.

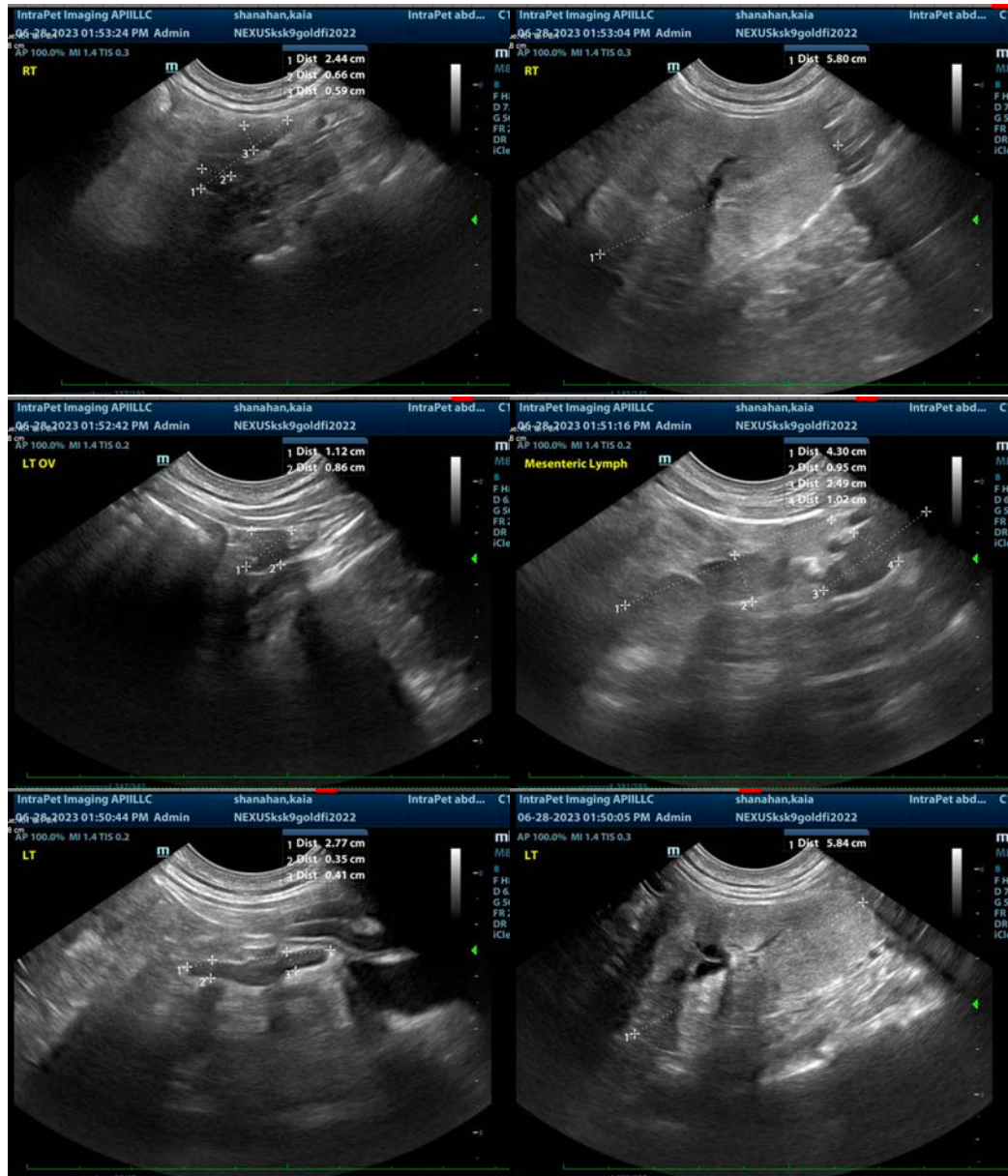
There are no reproductive abnormalities noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Renal dysplasia** – This appearance of the kidneys in a young dog is most concerning for congenital renal dysplasia or juvenile nephropathy. Other differentials include glomerular or interstitial nephritis, leptospirosis, chronic pyelonephritis, ethylene glycol toxicosis, etc.
- **Mild to moderate bilateral pyelectasia** – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- **Reactive mesenteric lymph nodes** – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations regarding this exam will be implemented by Dr. Cara Steele.



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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