

**DATE PRESENTING CLINICAL SIGNS**

6/21/22 Presented May 9 for new pet exam. Routine blood work found mildly elevated Crea. No clinical symptoms at home. Pet doing well

PATIENT

Butter Gutierrez Current Medications: Epakitin Powder Urinary Supplement, Renal Support diet

SPECIES

Canine

BREED

Great Pyrenees

SEX

Intact Female

AGE

5/19/19

WEIGHT

85 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Banfield White Marsh

REFERRING VET

Dr. Esdaile

INVOICE

38935

PRESENTING CLINICAL SIGNS

Presented May 9 for new pet exam. Routine blood work found mildly elevated Crea. No clinical symptoms at home. Pet doing well

Current Medications: Epakitin Powder Urinary Supplement, Renal Support diet

Lab Results: 5/19/22: CBC/Chem: 2.0 (0.5-1.8), 4DX neg, Fecal neg

5/27/22: Urinalysis Complete (Reflab) - Results attached

Creatinine (Reflab) - Results attached, SDMA - 17 (0-14)

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

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.

The kidneys are bilaterally small, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. No overt neoplasia or mineral is observed. The left kidney measured 6.43 cm. The right kidney measured 5.54 cm. Renal pelvis is dilated (pyelectasia) in the left kidney. No visible obstruction is observed, but cannot be ruled out.

Adrenal Glands

The right adrenal gland is normal in size (2.05 cm long x 0.89 cm at the cranial pole and 0.63 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 (2.25 cm long x 0.56 cm at the cranial pole and 0.66 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). A 1.2 cm round, hypo- to anechoic, slightly irregular nodule is noted, non-capsule disrupting near the head of the spleen. 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 stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal

ingesta. There is 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 peritoneal effusion. There is no apparent lymphadenopathy.

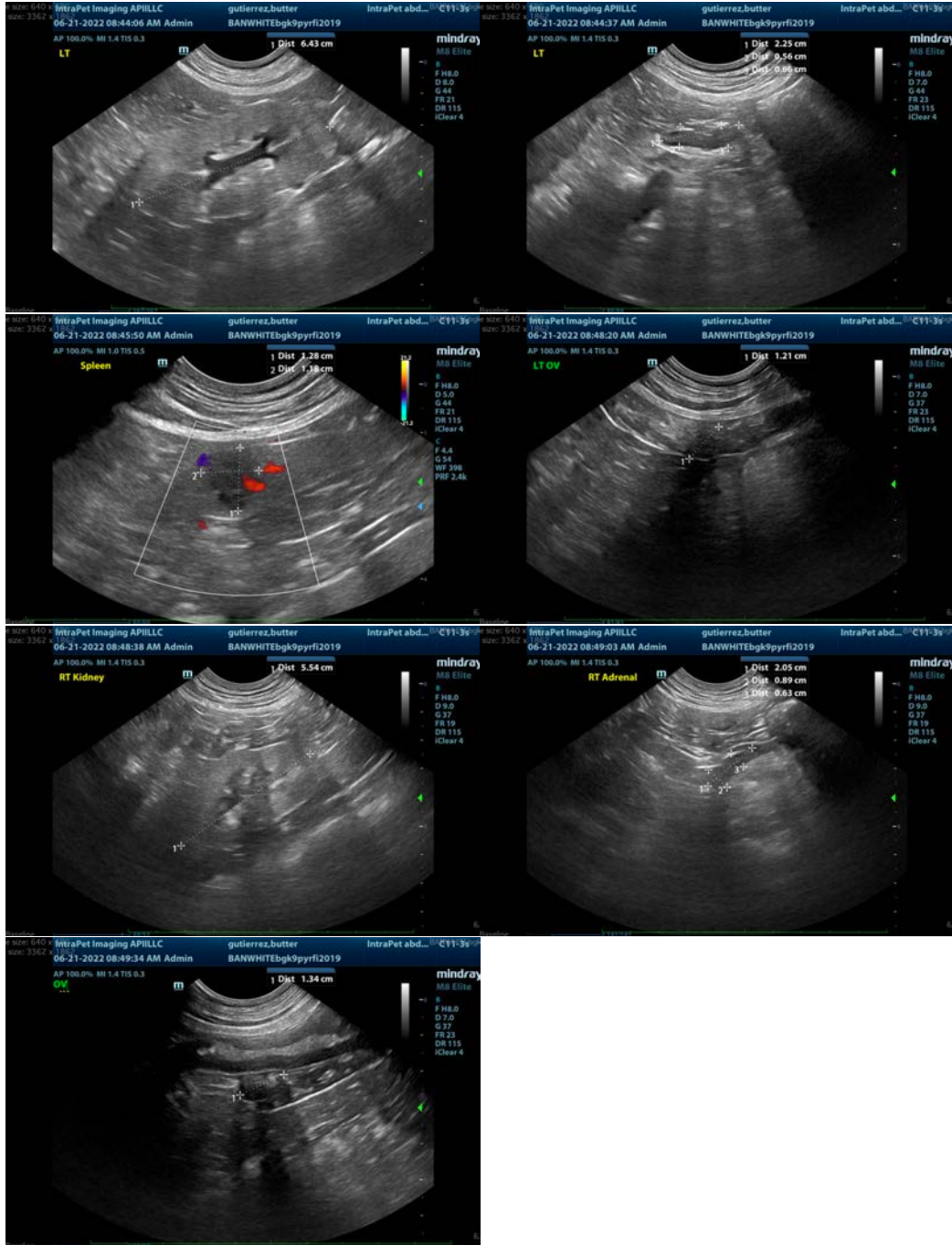
The ovaries are visible and unremarkable. There is no evidence of uterine pathology in these images.

ULTRASONOGRAPHIC FINDINGS

- 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.
- Left kidney pyelectasia - Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- Hypoechoic splenic nodule

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Blood pressure, if not recently evaluated.
- Urine protein to creatinine ratio to quantify the trace proteinuria reported.
- Testing for Leptospirosis could be considered, as could a urine culture to rule out infectious disease such as Lepto and/or an occult UTI, pyelonephritis, etc. An empirical course of antibiotics with monitoring of creatinine for improvement could also be considered. If improvement is noted, recommended treatment course is long-term, as would be used for a complicated UTI (i.e., 4-6 weeks).
- In the meantime, management of chronic kidney disease in the form of a renal diet (if tolerated) and medical management of any comorbidity such as hypertension, proteinuria, electrolyte abnormalities, etc.



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