



PATIENT

Hershey Dunmlao

SPECIES

Canine

BREED

Doberman Pinscher

SEX

Intact Male

AGE

10 Months

WEIGHT

63 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

New Bridge VP

REFERRING VET

Dr. Abina Glennon

INVOICE

45607

DATE

3/1/23

PRESENTING CLINICAL SIGNS

Patient recently arrived from the Philippines, presents for elevated renal values and PU/PD. Concern about glomerulonephropathy.

Abnormal PE/Chem/CBC/UA Results: SDMA 16, creat. 3.4, BUN 67. USG: 1.009. UPC 1+.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.40 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

Prostate is normal in size for an intact male (3.3 cm wide). Parenchyma is diffusely homogenous and relatively hyperechoic. Normal distinct margins and symmetrical bilobed shape are maintained.

The right kidney is small, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. No overt neoplasia or mineral is observed. The right kidney measured 5.08 cm.

The left kidney is more normal in size and contour, however, also maintains a relatively uniform hyperechogenicity and mild to moderately decreased corticomedullary distinction. There is no pyelectasia noted and no mineral observed. No overt masses or nodules are observed. The left kidney measures 6.14 cm.

Adrenal Glands

The right adrenal gland is normal in size (2.16 cm long x 1.28 cm at the cranial pole and 0.46 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 (2.37 cm long x 0.36 cm at the cranial pole and 0.49 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.



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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with mostly fluid, as well as some echogenic non-shadowing luminal contents and gas consistent with normal chyme. 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 largely empty with no evidence of obstruction, foreign material or infiltrative disease. However, some mildly fluid distended proximal duodenum with suspect peristalsis is noted, consistent with mild gastroenteritis versus possibly normal bowel activity.

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 medial iliac 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. The lymph nodes are approximately 1.0 cm thick.

Both testicles are visualized without evident pathology.

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.
- **Signs of renal dysplasia in the right kidney** – This appearance 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.
- Possible mild gastritis/gastroenteritis versus normal gastric function or potentially stasis secondary to the other underlying metabolic disease. Parasitic disease should also be suspected.
- **Reactive mesenteric lymph nodes** – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- **Cystitis** - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely given the location and diffuse nature



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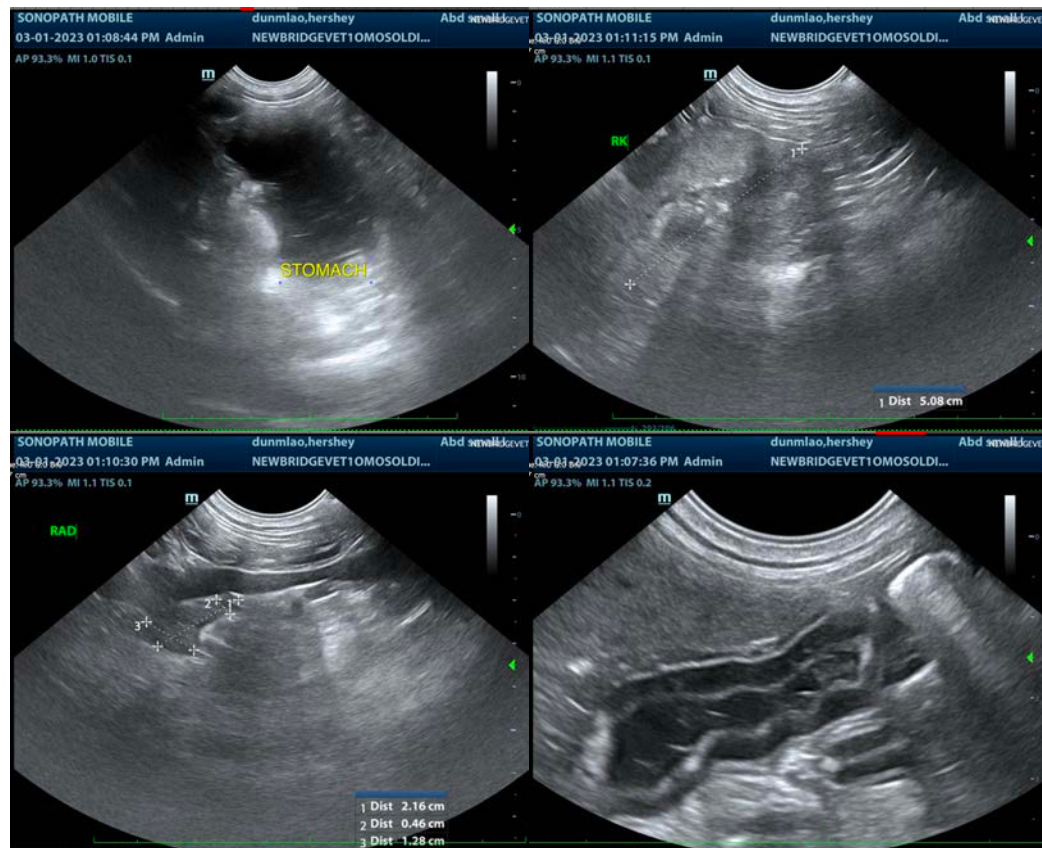
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

These kidneys have more of a chronic appearance than is expected with just an acute infectious insult. However, normal architecture is still appreciated, especially in the left kidney, which combined with patient's young age warrants further evaluation for possible occult insults, including most likely infectious disease. Therefore, recommendations include testing for Leptospirosis as well as any other geographically appropriate infectious diseases potentially acquired in the Philippines.

A urine culture, and if negative, urine protein to creatinine ratio as well as blood pressure are recommended if not recently evaluated.

In the meantime, medical management of chronic kidney disease as well as acute on chronic kidney disease is recommended in the form of transition to a renal diet (if tolerated), management of proteinuria and/or hypertension if indicated, broad-spectrum antibiotics, as well as symptomatic management of any gastrointestinal signs with antiemetics, gastroprotectants, etc. if indicated. Fluid therapy is also warranted until values either normalize or plateau.

Additionally, empirical deworming with a 5-day course of Panacur is recommended.





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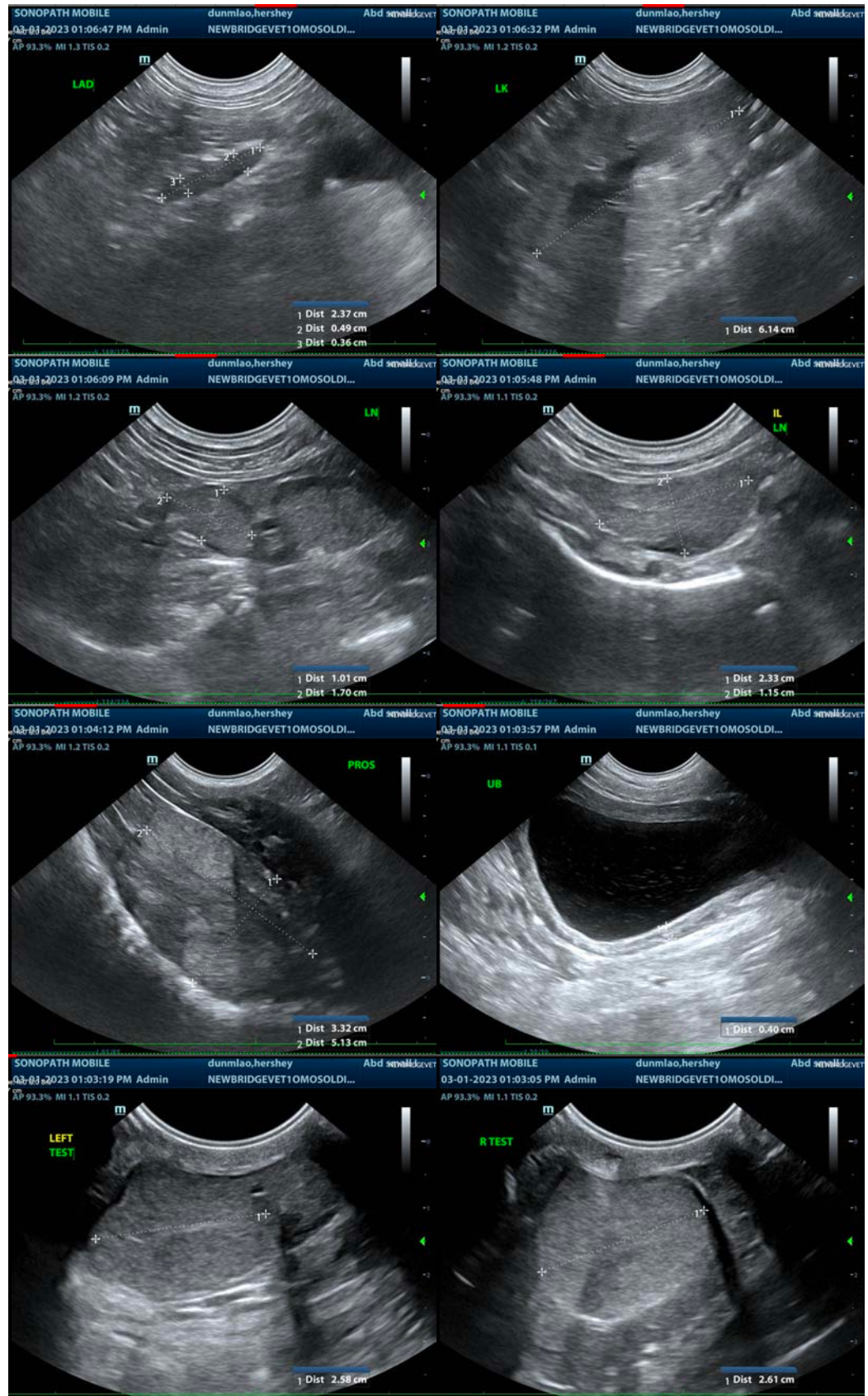
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
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