



PATIENT

Marli Forlines

SPECIES

Canine

BREED

Boston Terrier Mix

SEX

Neutered male

AGE

5 years

WEIGHT

29.8 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jill Rumachik

HOSPITAL NAME

Clarity Imaging LLC

REFERRING VET

Dr. Buley

INVOICE

71803

DATE

2/23/26

PRESENTING CLINICAL SIGNS

- Presented approx 1 month ago for PU/PD, seemed to improve; evaluated 2/17/26 for hurt back; seemed to improve -- and then again today, 2/23/26 as it seemed like he was painful again and inappetent. Also very lethargic.
- 1/23/26: BUN: 26 mg/dL, Creat: 1.6 mg/dL; calcium: 14.3 mg/dL; Liver values: Normal; CBC: Normal red blood cells, white blood cells, platelets; Electrolytes: Normal. Urine dilute (1.016); culture neg. 4dx neg. Ionized calcium = 0.88 mmol/L; baseline cortisol = 1.8 ug/dL 2/23/26: BUN = 87; CA = >16; PHOS = 8.7; CRE = 4.7; K+ = 3.5 Lepto tests pending.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure. The corticomedullary junction presented distinct, hyperechoic, medullary rim sign that is consistent with mineralization. This is likely tubular disease. Echogenic cortical remodeling was also noted. This is consistent with glomerulonephrosis/nephritis. The capsules were acceptably uniform without significant irregularities. The left kidney measured 4.0 cm. The right kidney measured 4.6 cm. Blood flow to the kidneys appear to be adequate on power Doppler assessment.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.5 cm. The right adrenal gland measured 0.8 cm at the cranial pole and 0.5 cm at the caudal pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.



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Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

ULTRASONOGRAPHIC FINDINGS

Glomerulonephrosis renal pattern with medullary rim sign.

Acute on chronic renal insult is likely. This may be toxin exposure such as ethylene glycol, immune mediated disease or infectious agents all potentials in this patient.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Blood pressure measurements and urine culture are indicated. Renal biopsy may be necessary for a definitive diagnosis.

Given the subnormal cortisol, full ACTH stimulation is recommended to assess for occult Addison's that may be playing a role. However, the kidneys do have evidence of chronic insult with the medullary rim sign and cortical remodeling. This is not a typical presentation of primary renal dysplasia, yet cannot be completely ruled out without core biopsies.

Internal medicine consult can be utilized through SonoPath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>



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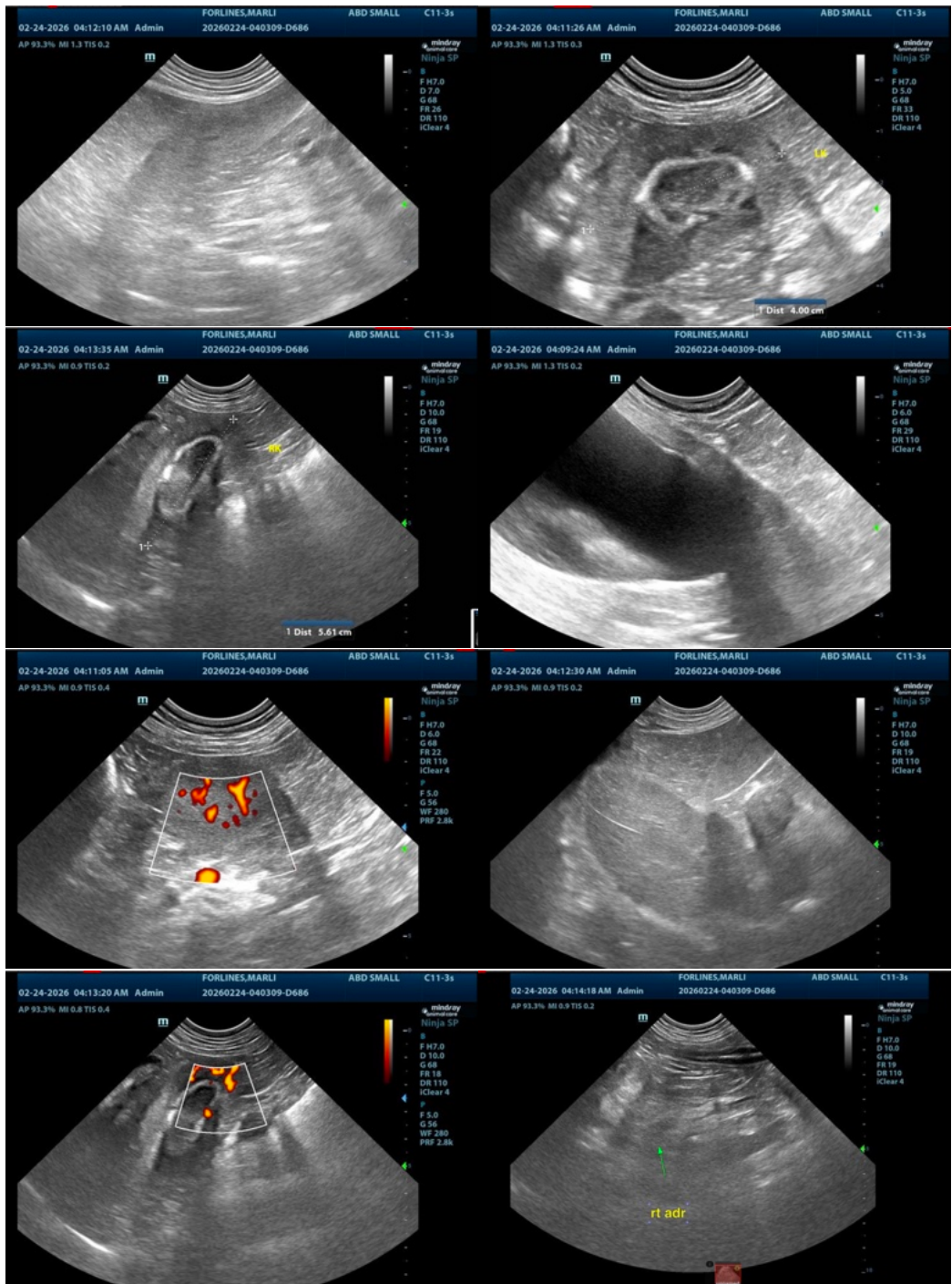
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



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can be of any further assistance please contact me.

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com