



**PATIENT PRESENTING CLINICAL SIGNS**

Nigel Miller

History: Presented 12/13 pm for acute vomiting, anorexia, lethargy. History of dietary indiscretion. No changes in urination. Normal BM earlier in the evening.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: On exam, very nauseated, lethargic, depressed. Vomited in treatment area prior to exam. On exam, suspect intestinal foreign body palpable in GIT. Gave cerenia.

**BREED**

Labrador Retriever

Rads showed gas & fluid throughout small intestine, suspect obstructive pattern. Planned for blood work, IVF, & ex lap. Then P defecated small toy in treatment area and developed liquid diarrhea but still extremely dull and nauseous. Proceeded with blood work & IVF. Baseline labs (330 am): CBC - HCT 63.6%, WBC 19.65k, Neut 17.16k, suspect bands, Eos 0.01k, rest wnl Chem10 - Creat 2.1, BUN 30, rest wnl EPOC - K 3.4, LAC 8.22, pH 7.383, HCT 64%, rest wnl Gave fluid boluses, started GI support & broad spectrum abx but P continued to look increasingly lethargic in kennel, still very nauseous despite passing the toy in BM earlier. MAP 73. 630 am - Recheck EPOC - K 3.2, LAC did not run, Creat 0.98, BUN 23, pH 7.314, HCT 52% LAC (Catalyst) = 9.37 Plan is for plasma transfusion in case of SIRS, rest of plan pending US report/ recommendations.

**SEX**

Male

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**AGE**

12 months

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal. Both ureters were dilated at least 5.0 cm caudal to the cystourethral junction and then were further visualized distally of the left ureter dilated, yet followed to the left ureteral papilla. No obvious obstruction noted other than likely stricture. The prostate does not appear large enough to be causing complete obstruction. The right ureter was also followed to the right ureteral papilla and appeared to be dilated likely owing to stricture.

**WEIGHT**

68.6 lbs

The prostate was fairly uniform and measured 3.0 cm with mild, heterogenous parenchymal changes. There was no evidence of significant pathology.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex. The capsules were acceptably uniform without significant irregularities. The left kidney revealed pyelectasia and dilated proximal ureter. Moderate hydronephrosis was noted and measured 4.0 x 3.0 cm. The right kidney also revealed pyelectasia and hydroureter. Both kidneys measured approximately 7.0 cm and were bilaterally enlarged.

**IMAGING PERFORMED BY**

Dr. Couser

**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.

**HOSPITAL NAME**

Willamette VH

**REFERRING VET**

Dr. Couser

**Spleen**

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself cranially. This is a positional variant and is not pathological. There was no evidence of significant disease.

**INVOICE**

94536

**DATE**

12/14/21



**PATIENT**

Nigel Miller

**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.

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Male

**Gastrointestinal**

The **stomach** appeared normal. The visible pylorus revealed mild hypertrophy, yet no evidence of foreign bodies. Echogenic remodeling of the mucosa was present. The small intestines were fluid filled. The regional lymph nodes appeared reactive. There was no evidence of obstruction.

**AGE**

12 months

**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.

**WEIGHT**

68.6 lbs

**ULTRASONOGRAPHIC FINDINGS**

Strictered ureters or possible prostatic influence upon hydroureter.

Minor fluid filled small intestine with regional reactive lymph nodes.

Mild pylorus hypertrophy.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Couser

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**HOSPITAL NAME**

Willamette VH

Neutering could be attempted in this patient with a recheck of the hydroureter 1-2 weeks post neutering to assess if this resolves post prostatic regression. However, no direct contact of the prostate was noted upon the ureteral papilla; however, I have seen cases where neutering and prostatic regression will resolve idiopathic hydroureter. It is fairly rare, but it can happen. Otherwise, CT with contrast/IVP would be warranted to assess ureteral patency at the ureteral papillae or direct surgical inspection. There was no obvious evidence of neoplasia. Given the azotemia, IV fluid support and urine culture would be warranted. GI protectants and a recheck sonogram in 24 hours if the patient continues to vomit. Gastritis protocol should prove effective. However, the azotemia should be corrected with IV fluid support.

**REFERRING VET**

Dr. Couser

**INVOICE**

94536

**DATE**

12/14/21



**PATIENT**

Nigel Miller

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

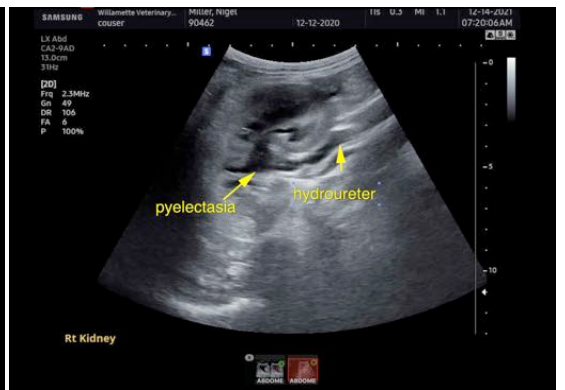
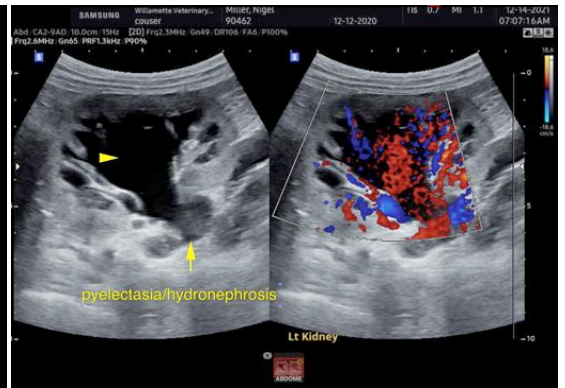
Male

**AGE**

12 months

**WEIGHT**

68.6 lbs



**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Couser

**HOSPITAL NAME**

Willamette VH



**REFERRING VET**

Dr. Couser

**INVOICE**

94536

**DATE**

12/14/21





**PATIENT**

Nigel Miller

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

**SPECIES**

Canine

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.

**BREED**

Labrador Retriever

**Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com**  
info@SonoPath.com

**SEX**

Male

**AGE**

12 months

**WEIGHT**

68.6 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING  
PERFORMED BY**

Dr. Couser

**HOSPITAL NAME**

Willamette VH

**REFERRING VET**

Dr. Couser

**INVOICE**

94536

**DATE**

12/14/21