



PATIENT PRESENTING CLINICAL SIGNS

Lilo Delgado

SPECIES

Canine

BREED

Anatolian Shepherd

SEX

Intact Male

AGE

3 Years

WEIGHT

13 Pounds

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Gabriel Ferrer

HOSPITAL NAME

Pulse Pet Ultrasound Services

REFERRING VET

Dr. Alma Alicea

INVOICE

44467

DATE

8/4/23

Came into the Emergency Clinic on 8/3/23 pm with hx of acute onset neck pain, nystagmus, decreased appetite for several weeks, pu/pd. vaccines expired 2/2023 (not up to date). indoor/outdoor yard. other dogs at home are fine. There are cars in yard as husband does some mechanical work with cars, there is antifreeze, but no known ingestion that owner is aware. also owner describes dog being PU/PD since was little. she notes this difference from other dogs. and dog's decreased appetite has been going on for at least 1 month. they moved to new place 3 months ago. Prior to that lived in the US. at arrival did cbc,chem, 4dx, lepto, rads. saved sample for UA/culture : Pending severe non reg anemia 17.9% chem - severe azotemia, hyperphosphatemia lepto snap neg 4dx neg x 4. rads - large bladder, thin bcs problems 1. hyporexia 2. severe non reg anemia - renal, bm dz, neoplasia, etc. less likely chronic dz since so severe. 3. severe azotemia - prerenal unlikely. renal (acute less likely due to anemia? but maybe pyelo, lepto, other. vs. Chronic - congenital, etc - renal dysplasia, PCKD?). neoplasia less likely. post renal less likely. 4. pu/pd - secondary to renal dz vs. other 5. neck pain - not noted today. infectious, trauma, less likely 6. nystagmus - vestibular? secondary to uremia? started on unasyn, pantoprazole, cerenia, iv fluids, u. cath. 8/4 - Lilo feels qar. no neck pain, walking well. no nystagmus. neurologic exam normal today. corneal opacity OD. otherwise normal. H/L wnl. LN wnl. abdomen no pain, u. cath in place - open cath. temp 100.7. small bladder on palpation. urine coming out of cath is yellow clear. Plan 1. UA with c/s - idexx - pending (samples obtained last night). 2. Abd. US 3. continue unasyn 30mg/kg iv bid 4. continue pantoprazole 1mg/kg iv sid 5. continue cerenia 1mg/kg iv sid 6. increase IV fluids 2x maint 7. monitor ins / outs - place collection bag to measure urine production 8. hospit. until tomorrow - 9. recheck CBC/Chem tomorrow 10. BP daily. spoke with owner - worried with kidney function and anemia. not sure if related to neurologic c/s noted? these are not noted today. Need to see how responds tomorrow. and should r/o UTI/congenital/structural problems better with US. but suspect with anemia this renal problem is more likely chronic, and px for chronic renal disease is grave long term. at least clinically he feels better today, so as long as he feels better we can continue, but have to be ready for the worse. owner seems to understand. needs estimate of US with c/s and abd US.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present some mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI.

The prostate was uniform at 1.68 cm.

The **kidneys** were diffusely hyperechoic with thickened cortices. The right kidney measured 3.98 cm with pyelectasia at 0.22 cm. The left kidney measured 3.47 cm with pyelectasia at 0.34 cm. Cortical remodeling and infarcts noted in the kidneys.

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 1.6 cm x 0.40 cm. The right adrenal gland measured 1.65 cm x 0.49 cm.



PATIENT *Spleen*

Lilo Delgado 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 were noted.

SPECIES

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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.

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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.

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Pancreas

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

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.

IMAGING PERFORMED BY

Dr. Gabriel Ferrer

Free Abdomen

Reactive mesenteric lymph nodes noted.

HOSPITAL NAME

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ULTRASONOGRAPHIC FINDINGS

- Chronic cystitis bladder pattern and acute on chronic renal failure

REFERRING VET

Dr. Alma Alicea

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Full urinary workup warranted if not already performed. Given the age of the patient and the sonographic appearance, I'm concerned for primary renal dysplasia and secondary degenerative changes. Chronic insult such as chronic Leptospirosis possible, however I would expect the kidneys to be larger. Renal biopsy necessary. Toxin exposure also possible. Prognosis is very guarded. Urine culture and sensitivity warranted. Blood pressure warranted. 72-hour IV fluid protocol and assessment of response to therapy indicated.

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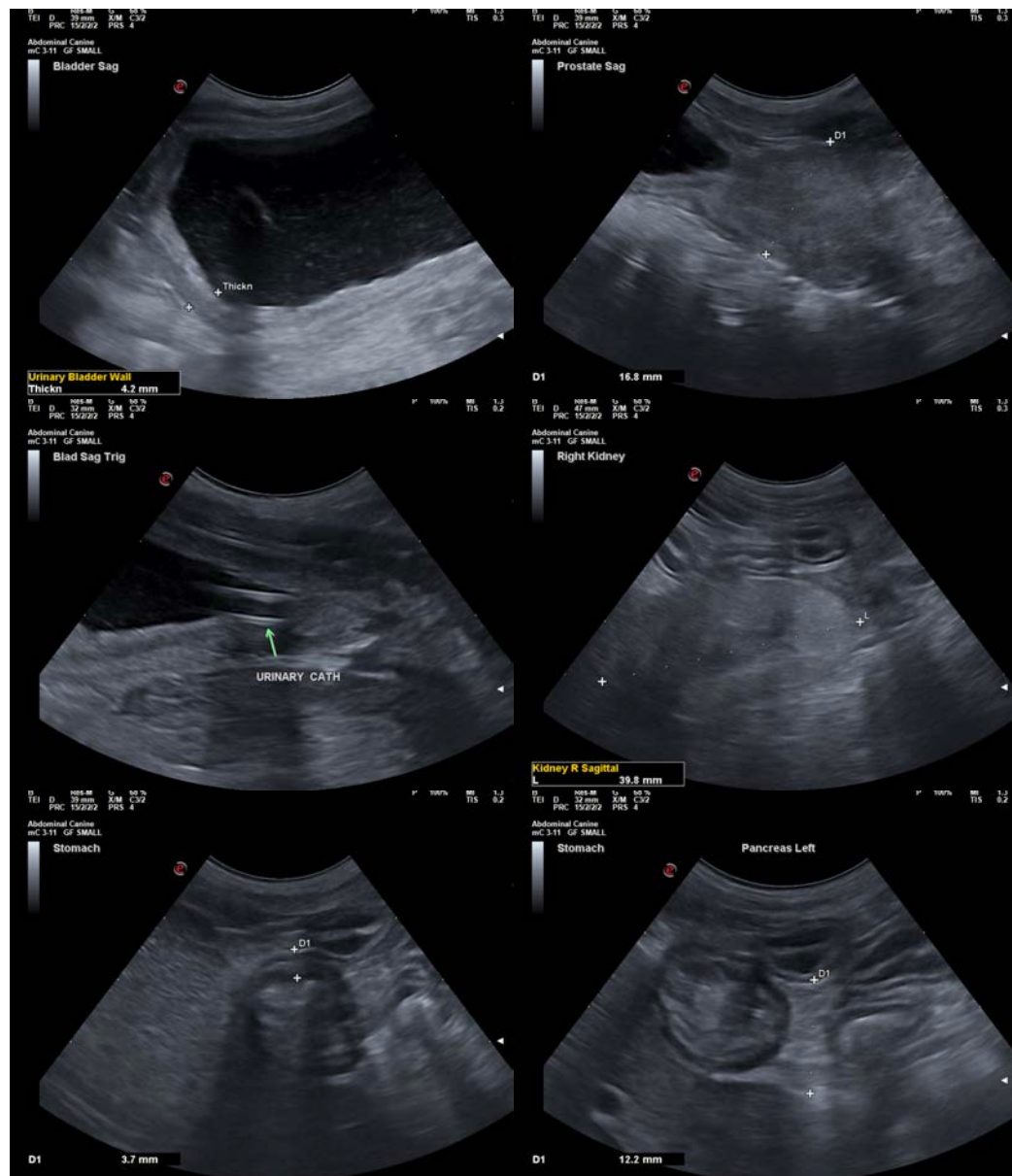
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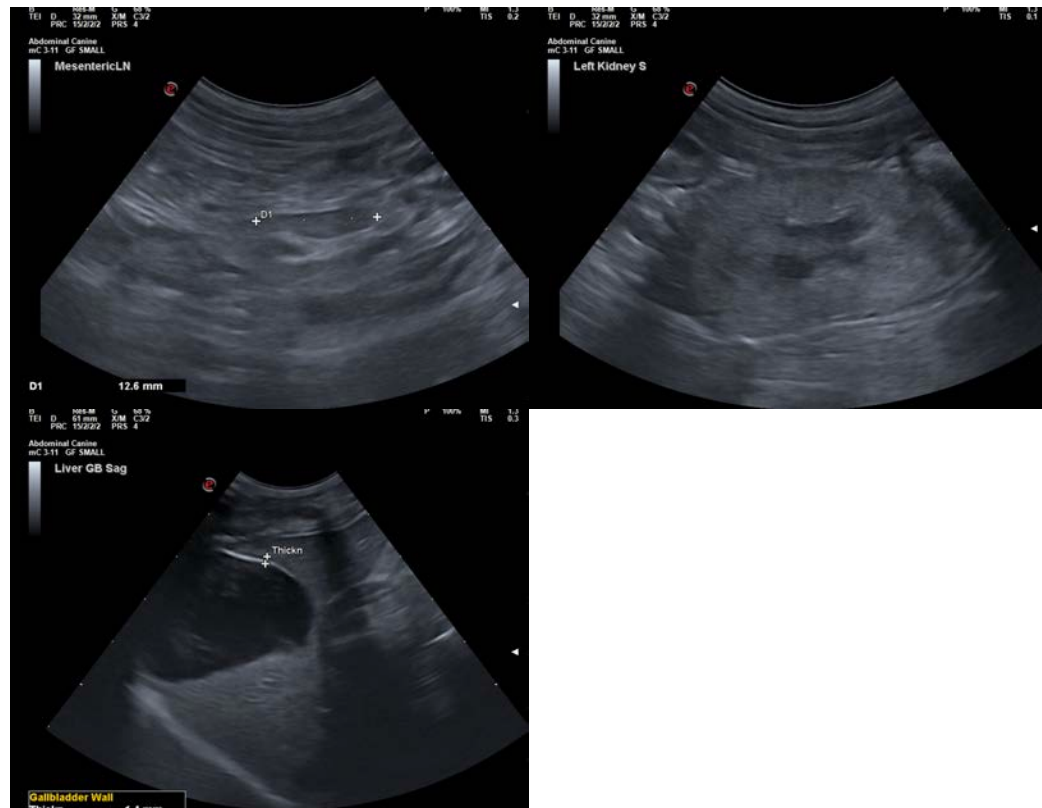
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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