



**PATIENT**

Charlie Desautels

**SPECIES**

Canine

**BREED**

Shetland Sheepdog

**SEX**

Neutered male

**AGE**

7 years

**WEIGHT**

19 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dallas Reynolds LVT

**HOSPITAL NAME**

Lone Mountain AH

**REFERRING VET**

Dr. Munoz

**INVOICE**

47933

**DATE**

6/22/23

**PRESENTING CLINICAL SIGNS**

History: P has a history of Cushing's, elevated liver values, and gallbladder issues seen in the past. P has been on Ursodiol (~13mg/kg sid) since then (last abdominal US performed on May 2022). P currently also on Denamarin and Vetoryl. P has also been on low fat diet d/t potential pancreatitis in the past. P was seen on 6/10/2023 for diarrhea, hematochezia, hyporexia. A resting cortisol was sent, basic BW was performed and p was kept overnight with fluids. A physiologic dose of dexamethasone was also given then. (Test results on next column). P was seen again on 6/21/2023. P has not been wanting to eat much and has been vomiting everything up. P also still having diarrhea.

Abnormal PE/Chem/CBC/UA Results: 6/10/2023: cbc - PLT 537 chem - ALP 2182, ALT 138, BUN 36, CRE 1.6, Na 141, K 6.2, Na:K 22.7 UA - USG 1.019, pH 5.5 Prot - 3+ Occult blood - 1+ RBC/WBC - 0 Resting Cortisol - 3.7 T4/Ft4 - wnl 6/22/2023 cbc - PLT 586, neuts 12096, Mon 1286 chem - ALP 1668, GGT 13, BUN 78, CRE 4.6, SDMA >60, CHOL 570, AMY 2402, Precision PSL 629 Post-pill ACTH stim test - shows optimal control

**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. Small calculi and sand were noted in the bladder. Some suspended debris was also noted. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex. Minor mineralization was noted in the kidneys with pyelectasia. The left kidney measured 6.5 cm.

**Adrenal Glands**

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The left adrenal measured 0.8 cm. The right adrenal gland was at the upper limits of normal and visualized obliquely at 0.7 cm.

**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.



**PATIENT**

Charlie Desautels

**SPECIES**

Canine

**BREED**

Shetland Sheepdog

**SEX**

Neutered male

**AGE**

7 years

**WEIGHT**

19 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUS

**IMAGING PERFORMED BY**

Dallas Reynolds LVT

**HOSPITAL NAME**

Lone Mountain AH

**REFERRING VET**

Dr. Munoz

**INVOICE**

47933

**DATE**

6/22/23

**Liver**

The **liver** was uniformly swollen. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. The gallbladder was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. No adjunctive inflammation was noted.

**Gastrointestinal**

The **gastrointestinal tract** revealed areas of spastic small intestine. Curvilinear detail was maintained. The colon was mildly thickened without loss of mural detail.

**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**

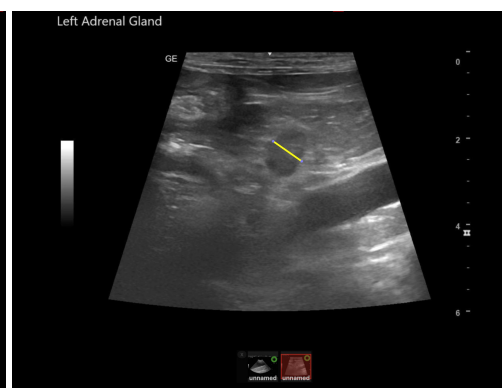
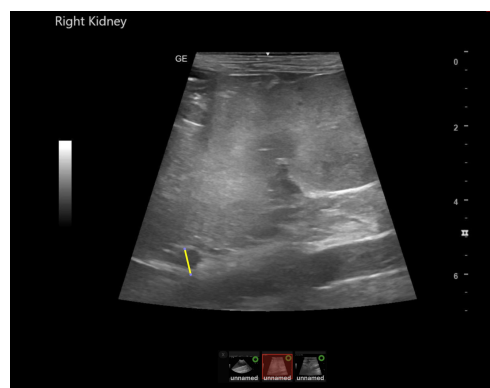
Subjectively benign hepatopathy with emerging gallbladder mucocele.

Bladder sand.

Mild, chronic GI changes.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

72-hour IV fluid protocol is warranted with full urine culture and sensitivity. The patient is likely passing calculi periodically complicating the renal presentation and causing acute on chronic episodes. Ursodiol therapy is warranted as an adjunctive supportive care. Leptospirosis titers are indicated. Blood pressure measurements are indicated. Reassessment of the azotemia and clinical profile after 72-hours of fluid support is recommended.





**PATIENT**

Charlie Desautels

**SPECIES**

Canine

**BREED**

Shetland Sheepdog

**SEX**

Neutered male

**AGE**

7 years

**WEIGHT**

19 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dallas Reynolds LVT

**HOSPITAL NAME**

Lone Mountain AH

**REFERRING VET**

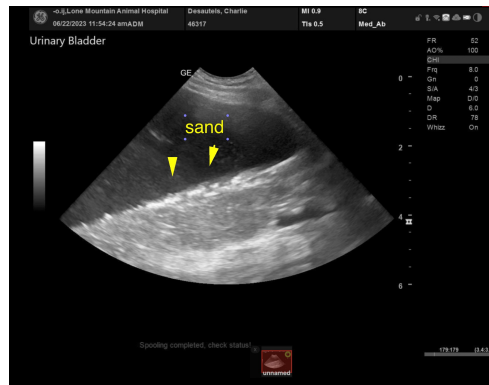
Dr. Munoz

**INVOICE**

47933

**DATE**

6/22/23



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  
info@SonoPath.com