



**PATIENT**

Ozzie Cartier

**SPECIES**

Canine

**BREED**

Shih Tzu x

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

33.6 lbs

**INTERPRETED BY**

Dr Brittany Sinclair,  
 BVSc(hons),  
 DACVECC

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Centerville Animal  
 Hospital

**REFERRING VET**

Dr. Sandhu

**INVOICE**

74759

**DATE**

4/28/26

**PRESENTING CLINICAL SIGNS**

The owner raised concerns about weight gain due to decreased exercise, general slowing down with age, chronic coughing, regurgitation after drinking quickly, increased lethargy over the past few weeks, excessive drinking, and occasional urinary accidents in the house. Historical Conditions: History of chronic coughing. History of chronic excessive drinking and occasional urinary accidents. Previous blood work was reportedly normal. Accuplex test was negative approximately 1 month ago. Assessment: Chronic Cough, Pu/PD, Chronic Bronchitis, Collapsing Trachea, Lethargy, Azotemia present, Hypercalcemia, Ca Di oxalate Dihydrate Crystals

Abnormal PE/Chem/CBC/UA Results: Labs attached

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is nearly completely empty. The wall is diffusely thickened, consistent with pseudohypertrophy. There are no focal areas of thickening. There is hyperechogenicity at the bladder apex with mild shadowing, consistent with mineral debris adhered to the bladder wall.

The kidneys have a smooth capsule and with hazing of corticomedullary definition to the point of inability to determine cortical/medullary ratio. No evidence of pelvic dilation was present. Hyperechoic, shadowing foci present in renal parenchyma and calyces bilaterally, consistent with nephrocalcinosis. Spherical anechoic fluid accumulation consistent with cortical cysts also noted in both kidneys. Cortical cyst in the left kidney measures 1.03 cm x 0.97 cm. Left kidney measures 4.69 cm. Right kidney measures 4.96 cm.

**Adrenal Glands**

Both adrenal glands were visualized and recognized. Both were subjectively prominent and hypoechoic and measured enlarged. No specific masses or nodules seen. The phrenic vasculature was unremarkable. Left measures 2.09 cm in length x 0.69 cm at the caudal pole and 0.61 cm at the cranial pole. Right measures 2.09 cm in length x 0.89 cm at the caudal pole and 1.38 cm at the cranial pole.

**Spleen**

The spleen was normal with age appropriate homogeneous parenchyma and a smooth capsule with normal splenic vasculature with no signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarct changes were noted.

**Liver**

The liver is subjectively normal in size with normal contours and structure. There is age appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion.

Gall bladder is moderately distended with normal wall thickness and anechoic contents. Common bile duct is non-distended and tapers normally.



**PATIENT**

Ozzie Cartier

**SPECIES**

Canine

**BREED**

Shih Tzu x

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

33.6 lbs

**INTERPRETED BY**

Dr Brittany Sinclair,  
 BVSc(hons),  
 DACVECC

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Centerville Animal  
 Hospital

**REFERRING VET**

Dr. Sandhu

**INVOICE**

74759

**DATE**

4/28/26

***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. There were no focal lesions consistent with obstruction or a mass effect observed.

Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

***Pancreas***

The area of the pancreas was isoechoic to surrounding tissue with no overt inflammation. Pancreatic tissue was not distinctly visualized which is common.

***Free Abdomen***

No clinically significant lymphadenopathy or abnormalities noted. No free fluid noted.

**ULTRASONOGRAPHIC FINDINGS**

- Bilateral adrenomegaly.
- Bilateral degenerative renal changes with nephrocalcinosis and cortical cysts.
- Empty urinary bladder with hyperechoic areas of apical wall.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The urinary bladder has areas of hyperechogenicity, which are most consistent with areas of mineral debris against the bladder wall or possibly embedded within the wall. They do not have the appearance of cystoliths.

Renal changes are likely chronic, age related degeneration. In light of azotemia, acute on chronic renal insult is likely. Progression of chronic renal disease, toxin exposure, leptospirosis, bacterial pyelonephritis, other infectious insults, recently resolved ureterolithiasis, among other things are all possibilities.

Additional diagnostics to be considered include urine culture (even if no bacteria on UA), leptospirosis testing, and careful questioning for the possibility of exposure to renal toxins (NSAIDs, grapes/raisins, cream of tartar, tamarind, vitamin D, rodenticide, etc). Doppler blood pressure measurement is recommended to screen for hypertension which can be present in both acute and chronic renal disease and worsens renal function.

Treatment with intravenous fluid therapy, GI support as needed including enteral nutrition and monitoring for stabilization or resolution of azotemia every 24-48 hours is recommended. Antibiotics are reasonable while awaiting infectious disease testing.



**PATIENT**

Ozzie Cartier

**SPECIES**

Canine

**BREED**

Shih Tzu x

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

33.6 lbs

**INTERPRETED BY**

Dr Brittany Sinclair,  
 BVSc(hons),  
 DACVECC

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Centerville Animal  
 Hospital

**REFERRING VET**

Dr. Sandhu

**INVOICE**

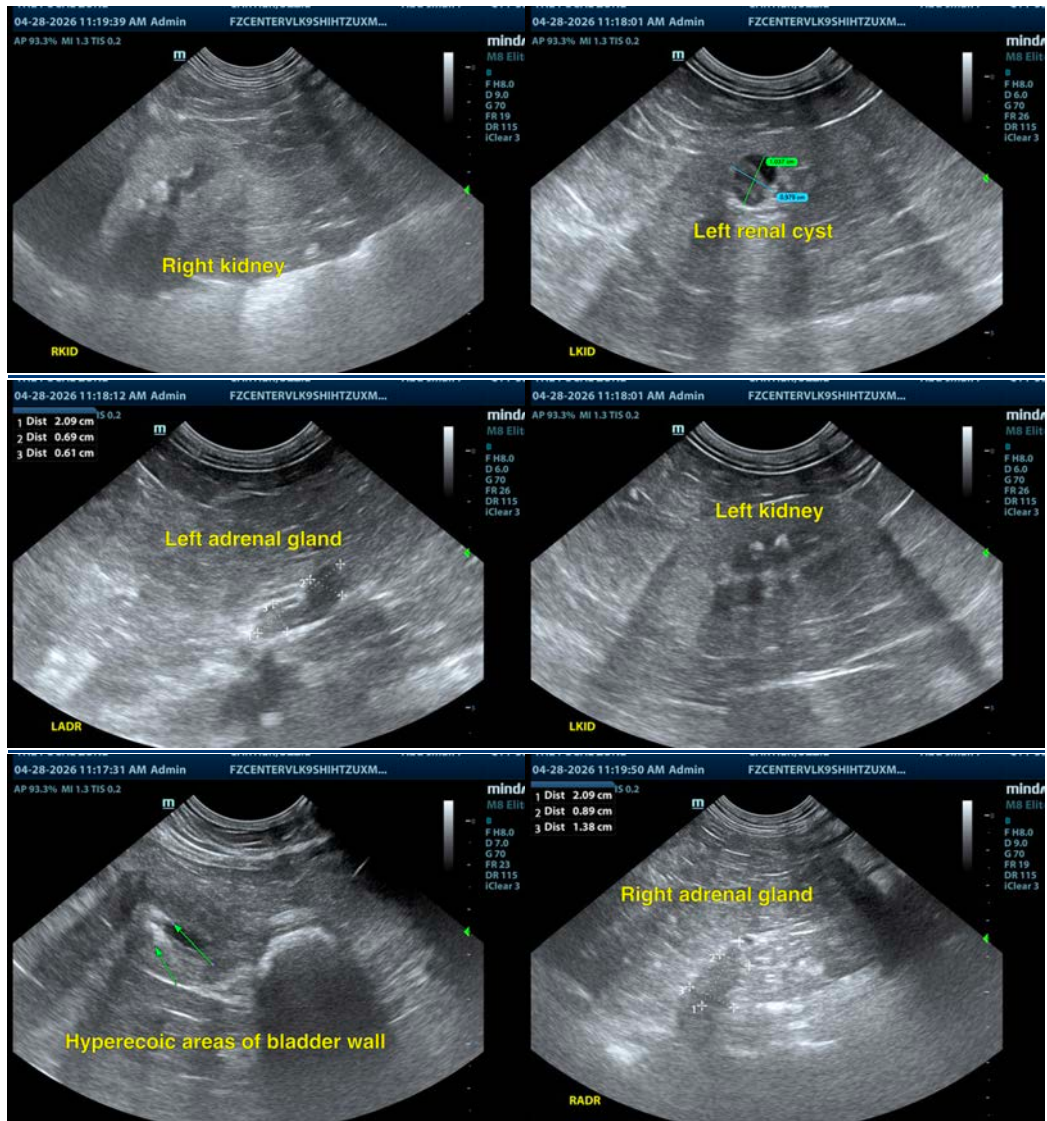
74759

**DATE**

4/28/26

Management for any patient with chronic renal dysfunction includes renal specific diet (protein and phosphorus limited), encouraging increased water intake with canned food and providing clean, running water source, and management of proteinuria and hypertension with ACE-inhibitor with addition of more anti-hypertensives as required. Monitoring of bloodwork, urinalysis and blood pressure every 3-6 months, or sooner if feeling unwell, is recommended.

Adrenomegaly is bilateral and may represent stressful illness or hormonal stimulation as is seen with pituitary dependent hyperadrenocorticism. Given that corresponding clinical signs are present, a urine cortisol creatinine ratio could be used as a screening test, and subsequent testing for hyperadrenocorticism should be considered (ACTH stimulation test vs LDDST).





**PATIENT**

Ozzie Cartier

**SPECIES**

Canine

**BREED**

Shih Tzu x

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

33.6 lbs

**INTERPRETED BY**

Dr Brittany Sinclair,  
BVSc(hons),  
DACVECC

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Centerville Animal  
Hospital

**REFERRING VET**

Dr. Sandhu

**INVOICE**

74759

**DATE**

4/28/26



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.

Dr Brittany Sinclair, BVSc(hons), DACVECC

info@SonoPath.com