



## PATIENT

Odie Green

## SPECIES

Canine

## BREED

Labrador Retriever x

## SEX

Neutered Male

## AGE

10 Years 8 Months

## WEIGHT

58 lbs

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Cecelia Fisher

## HOSPITAL NAME

Cape Coral Pet Vet

## REFERRING VET

Dr. Sharon Lomnicki

## INVOICE

72711

## DATE

12/18/25

## PRESENTING CLINICAL SIGNS

ALP was elevated.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. Minimal amount of urine present. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra were normal.

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 and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. Right kidney measured 7.2 cm. Left kidney measured 6.9 cm.

### *Adrenal Glands*

The **adrenal glands** were prominent, with the left measuring 1.2 cm and the right measuring 1.1 cm.

### *Spleen*

The **spleen** was folded upon itself caudally. It 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.

### *Liver*

Exam of the cranial abdomen demonstrated excessive **liver** size, swollen contour, with conserved uniform architecture. Parenchymal echogenicity was diffusely isoechoic to the spleen and falciform fat. The gallbladder was largely unremarkable with a minor amount of dependent debris. This is expected for this type of presentation. There was no overt pathology.

### *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.



## PATIENT

Odie Green

## SPECIES

Canine

## BREED

Labrador Retriever x

## SEX

Neutered Male

## AGE

10 Years 8 Months

## WEIGHT

58 lbs

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Cecelia Fisher

## HOSPITAL NAME

Cape Coral Pet Vet

## REFERRING VET

Dr. Sharon Lomnicki

## INVOICE

72711

## DATE

12/18/25

## ULTRASONOGRAPHIC FINDINGS

- Prominent adrenal glands.
- Benign hepatopathy.
- Mildly thickened urinary bladder.
- Folded spleen.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If USG is < 1.020 and the patient appears Cushingoid, workup for Cushing's/PDH indicated.

### Efficient & Accurate Cushing's Work up-Lindquist

#### Notes regarding Cushing's Clinical Presentations:

Nearly all Cushing's dogs have SAP elevations and true PU/PD (USG < 1.025) and most are polyphagic. Cushing's dogs are > 6 years and usually > 9 years old, usually have poor skin coats, body scores > 3/5, and are usually sedentary animals.

Its important to remember that Cushing's dogs usually look and play the part and other diseases cause false + stress related cortisol spikes. On rare occasion a Cushing's dog will not follow the rules but this is truly an exception.

Potential Cushing's patient workups can be costly and frustrating if not definitive and, in my experience, the non-definitive patient usually has something else going on that may be contributing to some of the clinical signs a Cushing's dog will have, especially SAP elevations or PU/PD. Based on this prelude of information I came up with the following algorithm in the spirit of diagnostic efficiency.

The following suggested protocol is based on current available literature on Cushing's disease and extensive clinical-sonographic experience evaluation + Cushing's and False + LDDST & ACTH stim. cases in order to maximize the efficiency of a Cushing's workup in practice.

#### Screen first, workup second

1) **UA:** Repeatable (2-3 urine samples) Urine specific gravity & urine cortisol/creatinine ratio (UCCR): If **repeatable USG < 10.20 and + UCCR** move to next step 2.

*Note: UA is inexpensive and easy to obtain and if UA criteria is not met for Cushing's then resources can be spent into other more pertinent diagnostics or left on hold until the UA criteria is met in emerging Cushing's cases.*

2) **Sonogram:** Does the patient **have concurrent disease** clinically or sonographically as non-Cushing's illness will influence the potential false + LDDST or even ACTH stim. The sonogram gives a global perspective of the internal health of the patient to be considered in the Cushing's workup as an assessment of concurrent disease. Is there a concurrent neoplastic process, UTI pancreatitis, mucocele....? Are the adrenals enlarged (Cushing's-PDH, stress, age related or breed variant), or atrophied (Iatrogenic Cushing's or adrenal burnout), have asymmetric enlargement (Adrenal tumor, hyperplasia, adenoma, age related variant), or is there vascular invasion (Invasive pheo with false + UA criteria or adenocarcinoma or phrenic thrombosis)? The sonogram answers these questions proactively.

3) **LDDST** (0.01 D-Sodium phosphate mg/kg IV) (Better screening test but plagued with false +) Use if there is potential early Cushing's or if adrenal asymmetry present on sonogram suspecting tumor. Use LDDST in cats at a higher dose (0.1 mg/kg IV).



## PATIENT

Odie Green

## SPECIES

Canine

## BREED

Labrador Retriever x

## SEX

Neutered Male

## AGE

10 Years 8 Months

## WEIGHT

58 lbs

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUS

## IMAGING PERFORMED BY

Dr. Cecelia Fisher

## HOSPITAL NAME

Cape Coral Pet Vet

## REFERRING VET

Dr. Sharon Lomnicki

## INVOICE

72711

## DATE

12/18/25

## OR

4) **ACTH stim.** (Better confirming test but can have false +) Use if the patient “looks” Cushingoid or if bilateral adrenal enlargement is present, or high normal width on sonogram, or if iatrogenic Cushing’s suspected (Cortisone Tx in past).

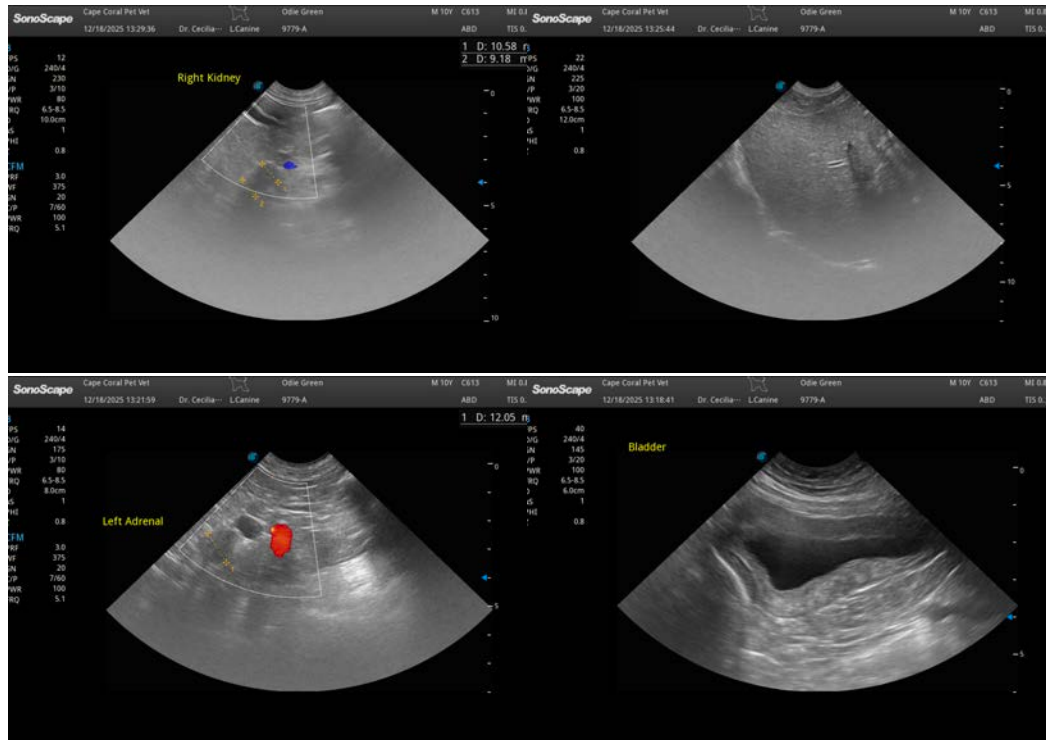
5) If **diabetic** then run both LDDST & ACTH stim.

5) Run a **serial blood pressure** in a BP friendly non “white coat effect” atmosphere. Run at least 3 at different times over a few hours or when eating as the patient tends to be calm when eating or give Torbutrol when entering the facility.

6) **Perform CT** of the pituitary to identify macro adenoma expansion if any lethargy or dullness or other central clinical CNS signs are minimally present.

Suggested reading:

Behrend EN, Kooistra HS, Nelson R, et al. Diagnosis of Spontaneous Canine Hyperadrenocorticism: 2012 ACVIM Consensus Statement (Small Animal). J Vet Intern Med 2013;27:1292–1304 .





## PATIENT

Odie Green

## SPECIES

Canine

## BREED

Labrador Retriever x

## SEX

Neutered Male

## AGE

10 Years 8 Months

## WEIGHT

58 lbs

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUSS

## IMAGING PERFORMED BY

Dr. Cecelia Fisher

## HOSPITAL NAME

Cape Coral Pet Vet

## REFERRING VET

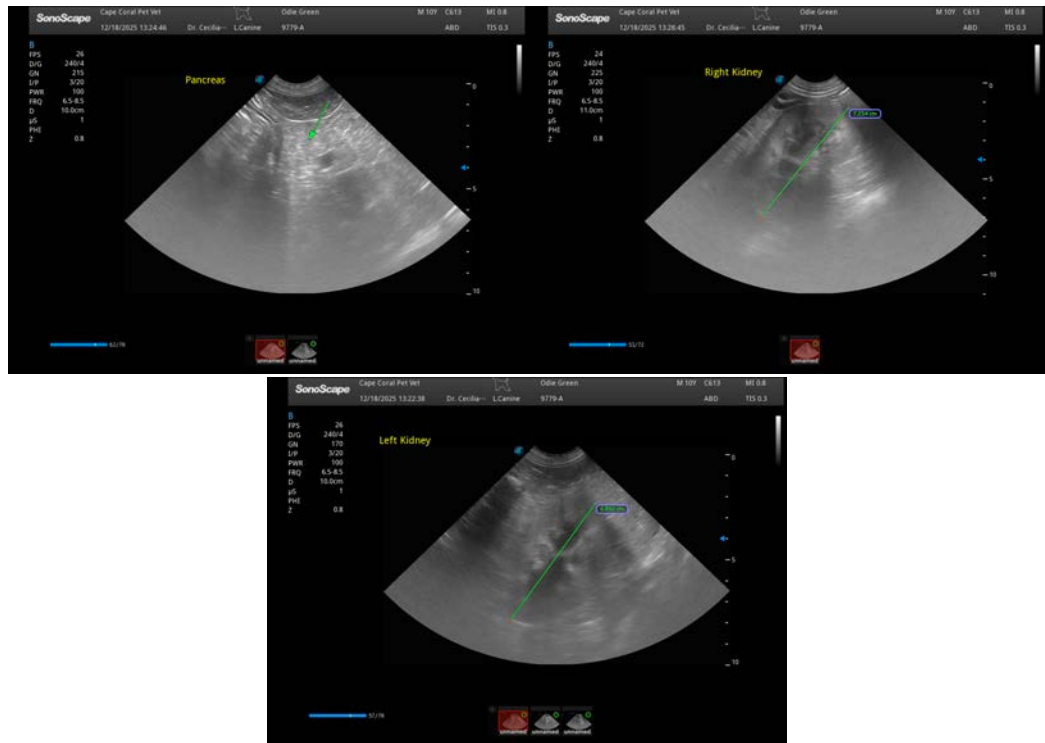
Dr. Sharon Lomnicki

## INVOICE

72711

## DATE

12/18/25



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(CFM), Cert. IVUSS,**  
CEO, Owner, Founder -- SonoPath.com  
[info@SonoPath.com](mailto:info@SonoPath.com)