



## PATIENT

Truffles Morocco

## SPECIES

Canine

## BREED

Chihuahua Mix

## SEX

FS

## AGE

15 years

## WEIGHT

15 lbs

## INTERPRETED BY

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

## IMAGING PERFORMED BY

Dr. Kitz

## HOSPITAL NAME

Woodlands Animal  
Hospital

## REFERRING VET

Dr. Danielle Kitz

## INVOICE

11713

## DATE

4/15/2026

## PRESENTING CLINICAL SIGNS

History of adrenal gland tumor, cushings, pyelonephritis, hypertension worked up in September 2025 (previous sonopath report dated 9/3/2025.) Was confirmed to have cushings, but dex suppression testing consistent with pituitary, not adrenal mass. Discussed findings with internist and they recommended work-up for possible pyelonephritis as underlying cause for PU/PD, before proceeding with tx for cushings. Owner declined referral for adrenalectomy due to age, concurrent issues. We treated urinary tract infection and confirmed resolution with repeat culture. Patient was doing better, but over the weekend went to ER with signs of disorientation after falling off of the back of the couch. They noted a heart murmur, did some radiographs which showed possible enlarged heart. ECG was normal. She has a history of these episodes of disorientation and collapse over the past year, possibly two or three other instances. She sometimes urinates, has possible post-ictal signs for a few minutes. Recommended f/u ultrasound to reassess adrenal, look at pancreas, kidneys, etc. Suspect episodes of collapse are neurological, as she goes long periods (months) in between and there is a distinct post-ictal phase for most episodes. Recommended echo but owner declined for now due to cost.

Abnormal PE/Chem/CBC/UA Results: Grade II left parasternal murmur, normal HR/rhythm, s/s pulses, mm p/m, normal lungs and RR/effort Labs show elevated BUN, Creatinine, Phosphorus, PSL>1000 Urine shows active sediment with pyuria, bacteriuria, and hematuria. Culture is pending, but growth detected. Dex supp historical results (9/2025): Pre-cortisol -2.5 4 hour cortisol -0.3 8 hour cortisol -3.5

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder is moderately distended with mildly echogenic urine. The Bladder wall appears mildly thickened and slightly irregular measuring at 0.29 cm in the apical region. The region of the, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal free from any mass, lesions, or calculi.

The left kidney has a normal shape and size (4.63 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. Pyelectasia noted measuring 0.36 cm, and hyperechoic tissue surrounding the renal pelvis. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.35cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no fluid surrounding the kidney but the mesentery appears somewhat hyperechoic and reactive. Pyelectasia noted measuring 0.31 cm with hyperchoic tissue around the pelvis. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### Adrenal Glands

The left adrenal gland is large in size and abnormal in shape measuring 0.5 cm at the cranial pole and 1.37 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that the caudal pole is large, rounded, and hypoechoic most consistent with a nodule measuring 1.37 cm x 1.71 cm. No evidence of vascular invasion is visualized.



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The right adrenal gland is normal in size measuring 0.44 cm at the cranial pole and 0.43 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

### Spleen

The spleen is subjectively normal in size (1.69 cm) and the echotexture is homogenous. The splenic capsule is smooth with no visible irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

### Liver

The liver is large in size and has rounded margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There's a hyperechoic mass effect visualized in the mid region of the liver on the transverse view measuring 2.73 cm x 3.46 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. 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. The duodenum measured as normal (0.4 cm in wall thickness) and the jejunum measured as normal (0.33 cm.) Visualized peristalsis appears appropriate. 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 pancreas is visible/mottled in the right limb. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is slightly hyperechoic around the right kidney.

## ULTRASONOGRAPHIC FINDINGS

- Mild suspended echogenic debris in the urinary bladder, and a mildly thickened urinary bladder wall. Findings could be consistent with cystitis.



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- Hypoechoic nodule visualized in the caudal pole of the left adrenal gland. Findings are most consistent with a benign lesion such as an adenoma. An early neoplastic lesion cannot be ruled out (carcinoma, pheochromocytoma, etc.) This lesion is relatively stable from the previous measurement 9/03/2025 at 1.32 cm.
- Pancreatic changes consistent with chronic pancreatic remodeling.
- Large, heterogenous, rounded liver with a hyperechoic mid hepatic mass lesion. General findings are suggestive of a vacuolar hepatopathy, although other hepatopathies are possible. The hyperechoic lesion has the appearance most consistent with an adenoma, although a carcinoma or other lesion cannot be ruled out.
- Moderate gallbladder debris. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia and evidence of inflammation suggestive of pyelonephritis.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The left caudal adrenal nodule appears relatively stable. This favors a benign lesion as it does not appear to be rapidly progressing at this time. If surgical removal is not an option, and the patient clinically has symptoms very consistent with Cushing's then consider medical therapy, which may have some benefit for either pituitary or adrenal dependent Cushing's.

The urine appears somewhat echogenic and the bladder wall appears mildly thickened, possibly consistent with cystitis. This would agree with the findings on the urinalysis reported. Recommend a urine culture and aggressive treatment as both kidneys have changes consistent with pyelonephritis. The urine should be cultured post treatment to ensure the infection has cleared (typically at least 4-6 weeks of antibiotics based on sensitivity results) and in this individual with reported azotemia, consider diuresis as well.

If this patient has persistent hypertension, recommend treatment (if not already well controlled) as this can cause seizure activity in some individuals.

There's a hyperechoic mass effect visualized in the mid region of the liver. This has a benign appearance, possibly consistent with an adenoma, although a carcinoma or other lesion cannot be ruled out. Based on the location sampling would be challenging. If surgery is not an option, consider continued monitoring, as this could possibly be a slow growing benign lesion.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.



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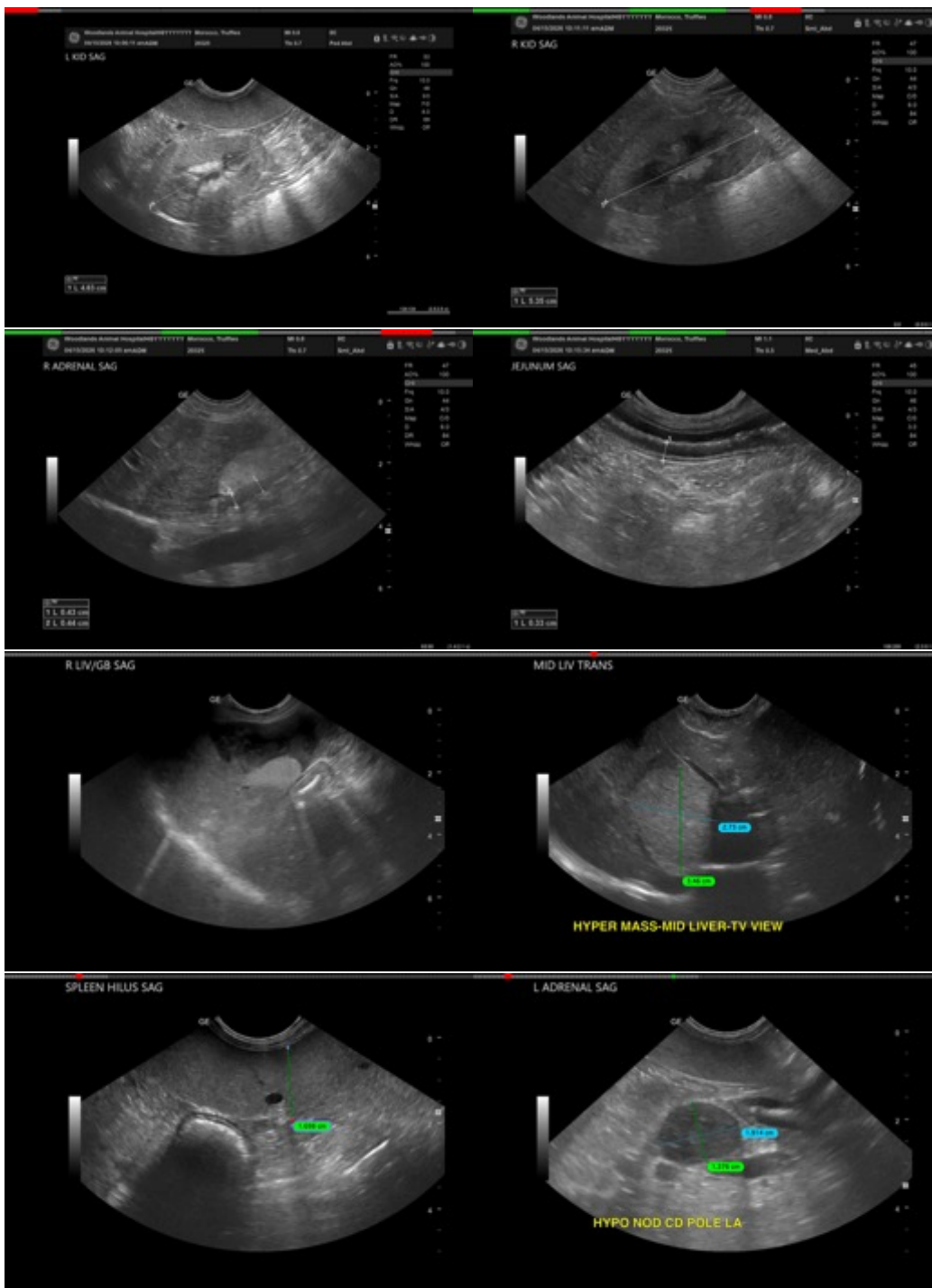
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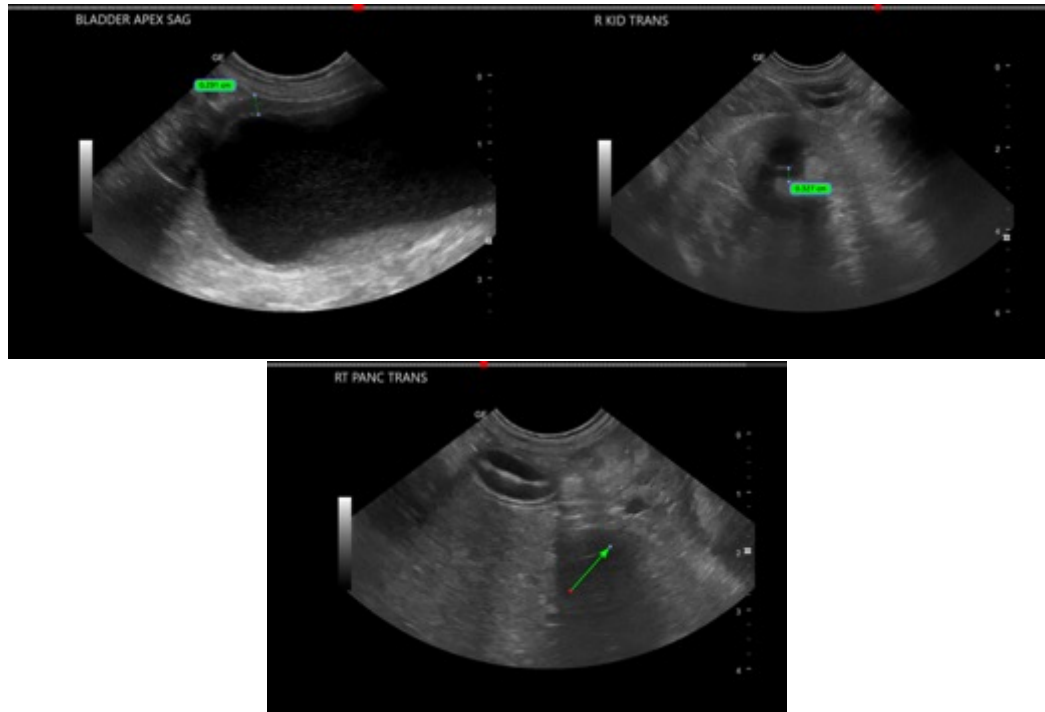
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

info@sonopath.com

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