

**PATIENT PRESENTING CLINICAL SIGNS**

Oreo Brown P presented for shaking and ADR. Bloodwork showed AKI, CKD? P hypertensive 210-235 mmHg- given dose of amlodipine- systolic still 218mm Hg. Unsure if p has been exposed to toxin or jerky treats, concern for toxin, infectious, distal tubular injury

**SPECIES**

Canine

**BREED**

Shih Tzu

Abnormal PE/Chem/CBC/UA Results: CBC: HCT 28.6, PLT 622 Chem: BUN 98, Crea 2.8, Phos 9.8, Amy 1545, Urinalysis: (cysto) usg 1.012, pro 100mg/dL, Glu 100mg/dL, Bld 250 ery/ul, WBC 6/hpf, RBC >50/hpf.

**SEX**

MI

**AGE**

7 years

**WEIGHT**

4.9 kg

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is symmetrically enlarged (3.03 cm wide in the sagittal view) with smooth margins that are well differentiated from surrounding tissue. Normal bilobed shape is maintained. Parenchyma is heterogenous with scattered hyperechoic foci present. No mineral or cysts are noted.

Kidneys are bilaterally irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no mineral observed. Mild pyelectasia is noted bilaterally. Left kidney is small/normal in size, measuring 3.76 cm. The right kidney is normal in size, measuring 4.2 cm.

**Adrenal Glands**

The right adrenal gland is normal in size (1.0 cm at cranial pole and 0.53 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.51 cm at cranial pole and 0.54 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**Spleen**

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**Gastrointestinal**

**INTERPRETED BY**

Beth Johnson, DVM  
 DACVIM

**IMAGING PERFORMED BY**

Dr. Kathleen Byrnes

**HOSPITAL NAME**

Animal Emergency  
 Clinic of The High  
 Country

**REFERRING VET**

Dr. Watson

**INVOICE**

11596

**DATE**

4/1/2026



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The visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. If patient was appropriately fasted, delayed gastric emptying could be considered. Non-shadowing foreign material is considered less likely but cannot be definitively ruled out.

If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction or foreign material noted.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**Pancreas**

The pancreas that is observed appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**Free Abdomen**

There is no visible free peritoneal effusion noted in these images.

There is no apparent pathologic lymphadenopathy noted in these images.

Both testicles are visualized without evident testicular pathology.

**PRIMARY FINDINGS**

- Mild bilateral chronic kidney disease changes with mild bilateral pyelectasia.

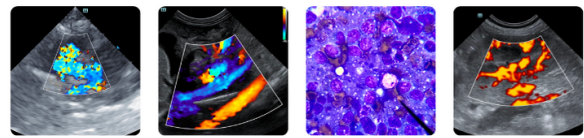
**SECONDARY FINDINGS**

- Benign Prostatic Hyperplasia – Prostatic findings are most consistent with Benign Prostatic Hyperplasia (BPH) and hyperechoic foci consistent with increased vascularity and fibrosis often associated with BPH. Active prostatitis cannot be ruled out. Infiltrative neoplasia cannot be ruled out but is considered less likely.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Based on the appearance of the kidneys, some chronic component to the suspected kidney disease is suspected. Having said that, an acute on chronic insult or injury can't be definitively ruled out. Therefore, continued investigation/evaluation for possible toxins, infectious disease, i.e. a urinary tract infection, leptospirosis, etc. is recommended.

Additionally, a baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.



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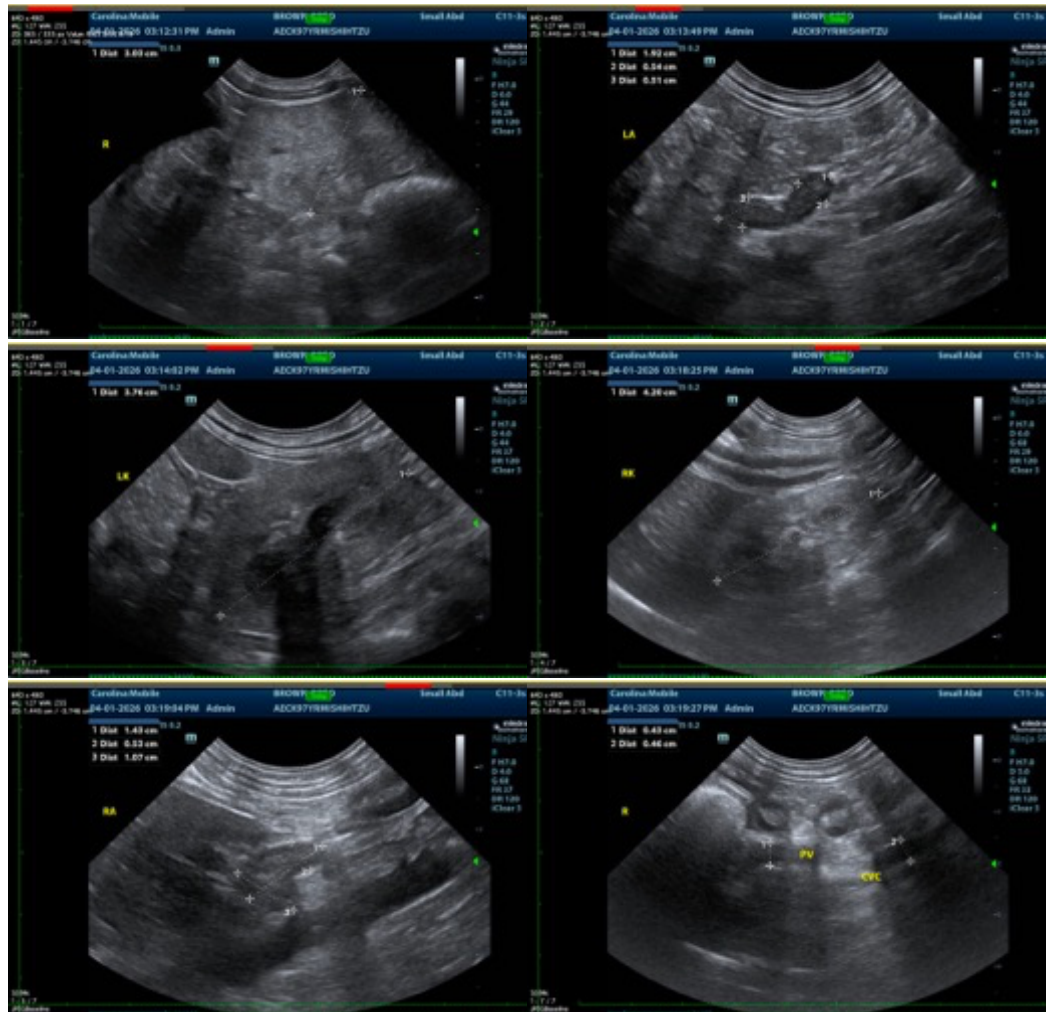
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In the meantime, supportive/symptomatic medical management of clinical signs and suspected acute kidney injury is recommended while monitoring azotemia for improvement. Chronic kidney disease management, including management of hypertension, proteinuria if indicated, any clinical signs as well as if tolerated diet change, etc., may be necessary moving forward pending patient's response to treatment.



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.

**Beth Johnson, DVM, DACVIM**  
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