



PATIENT

Basil Martinez

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

10

WEIGHT

15.7

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING PERFORMED BY

Dr. Sharkaway

HOSPITAL NAME

Kew Gardens Animal
Hospital

REFERRING VET

Dr. Sharkaway

INVOICE

12343

DATE

11/19/25

PRESENTING CLINICAL SIGNS

Head tilt Dizziness Lethargy Vomiting Hypertensive Panting

Abnormal PE/Chem/CBC/UA Results: BW- wnl Hypothermia panting vomiting

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

| CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (M-Mode) | LA/AO (Heart Base; Swe) | FS (%) | EF (%) | EPSS (cm) |
|---------------------------|---------------|---------------|----------------|-------------------------|----------------------|--|--|
| NORMAL PARAMETER | 4.5-5.5 | <2.7 | 1.3 | Up to 1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | -- | -- | NM | 1.0 | 38 | 70 | 0.2 |
| CANINE CARDIAC PARAMETERS | HR (BPM) | AV VMAX (m/s) | PV MAX (m/s) | BODY WEIGHT (kg) | LAD LA MAX 4 Chamber | LVIDd Avg; 2D and m-mode short axis (cm) | LVIDs Avg; 2D and m-mode short axis (cm) |
| NORMAL PARAMETER | 50-100 | 0.7-1.7 | 0.7-1.6 | | | | |
| PATIENT | NM | 1.0 | 0.6 | -- | 2.2 | 2.1 | -- |

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. No overt MR on doppler. The **left ventricle** presented subjective mild increased free wall and septal thicknesses with mild alinear contour. The **myocardium** presented some echogenic remodeling consistent with age-related change. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated normal laminar flow with subjectively unremarkable structure. Overtly normal measured LV outflow velocity. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated expected findings for this age patient. The **right ventricle** was of normal size (1/3 diameter of LV), echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Normal measured RVOT velocity. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window.

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The



| | |
|-----------------------------------|---|
| PATIENT | ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic change were noted. |
| Basil Martinez | |
| SPECIES | No overt pathology in the area of the residual prostate. |
| Canine | Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.2 cm in length. The right kidney measured 4.1 cm in length. |
| BREED | |
| Shih Tzu | Adrenal Glands |
| SEX | The left and right adrenal glands were not definitively visualized. |
| Neutered Male | Spleen |
| AGE | The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted. |
| 10 | |
| WEIGHT | Liver |
| 15.7 | The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. |
| INTERPRETED BY | |
| R. McKenzie Daniel, DVM, DABVP | |
| IMAGING PERFORMED BY | The gallbladder was non distended in size with mild nonorganized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation. |
| Dr. Sharkaway | Gastrointestinal |
| HOSPITAL NAME | The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material. |
| Kew Gardens Animal Hospital | The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. |
| REFERRING VET | Normal visible colon wall layers were present with apparent formed feces in lumen. |
| Dr. Sharkaway | Pancreas |
| INVOICE | The area of the pancreas was sonographically normal. |
| 12343 | Free Abdomen |
| DATE | No overt lymphadenopathy or peritoneal effusion was present. |
| 11/19/25 | ULTRASONOGRAPHIC FINDINGS |
| | <ul style="list-style-type: none">• Normal echocardiogram with subjective mild LV hypertrophy. |



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- Mild benign hepatomegaly.
- Sonographically normal gastrointestinal tract/area of pancreas.
- Minor gallbladder debris (non-mucocele).
- Age-related renal changes.

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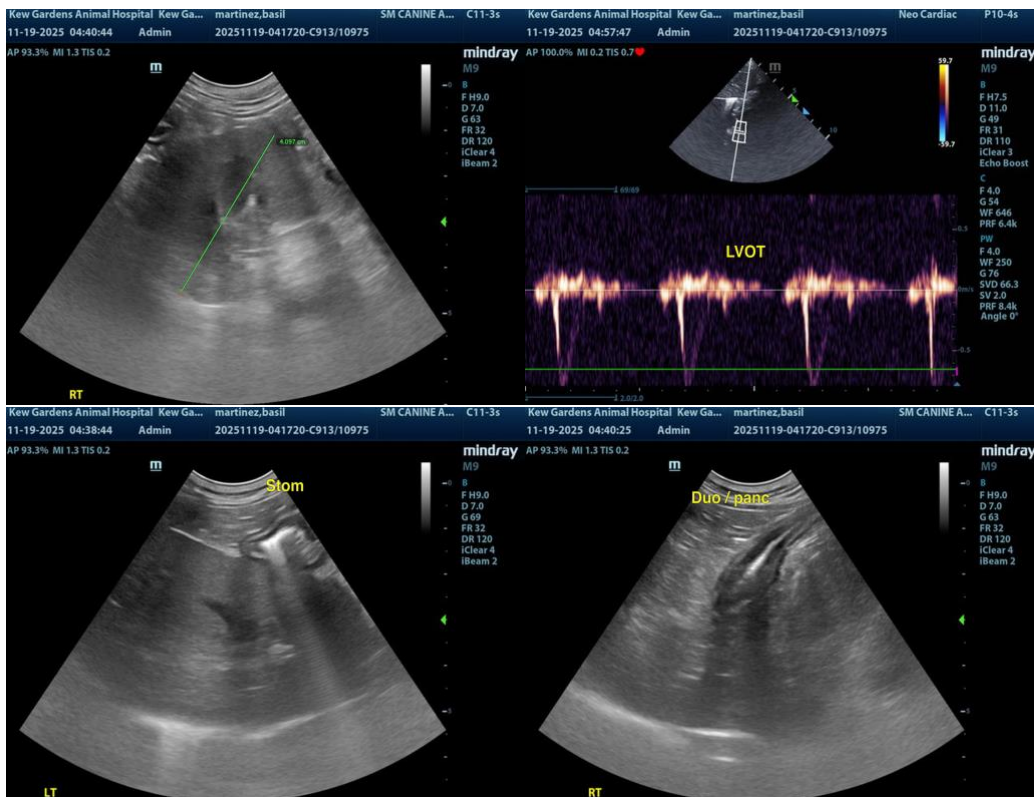
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, no evidence of significant cardiac or abdominal visceral pathology as a definitive cause of the patient's clinical and gastrointestinal signs.

Considerations for the subjective mild thickened left ventricle may include dehydration (pseudohypertrophy), previous or current systemic hypertension given patient's history, mild primary HCM similar to a cat, less likely infiltrative disease such as lymphoma. The lack of LA enlargement indicates the current and future risk of complication is low. No obvious indication for cardiac medications. Continued monitoring and therapy for hypertension if present is indicated. Recheck echo is recommended if clinical signs consistent with cardiac dysfunction arise.

Sonographic reassessment of the bilateral adrenal glands is indicated if persistent or progressive hypertension or clinical signs which may suggest adrenal disease. A spec cPL is suggested to assess for mild pancreatitis (which may present sonographically normal). Gastrointestinal support is indicated.





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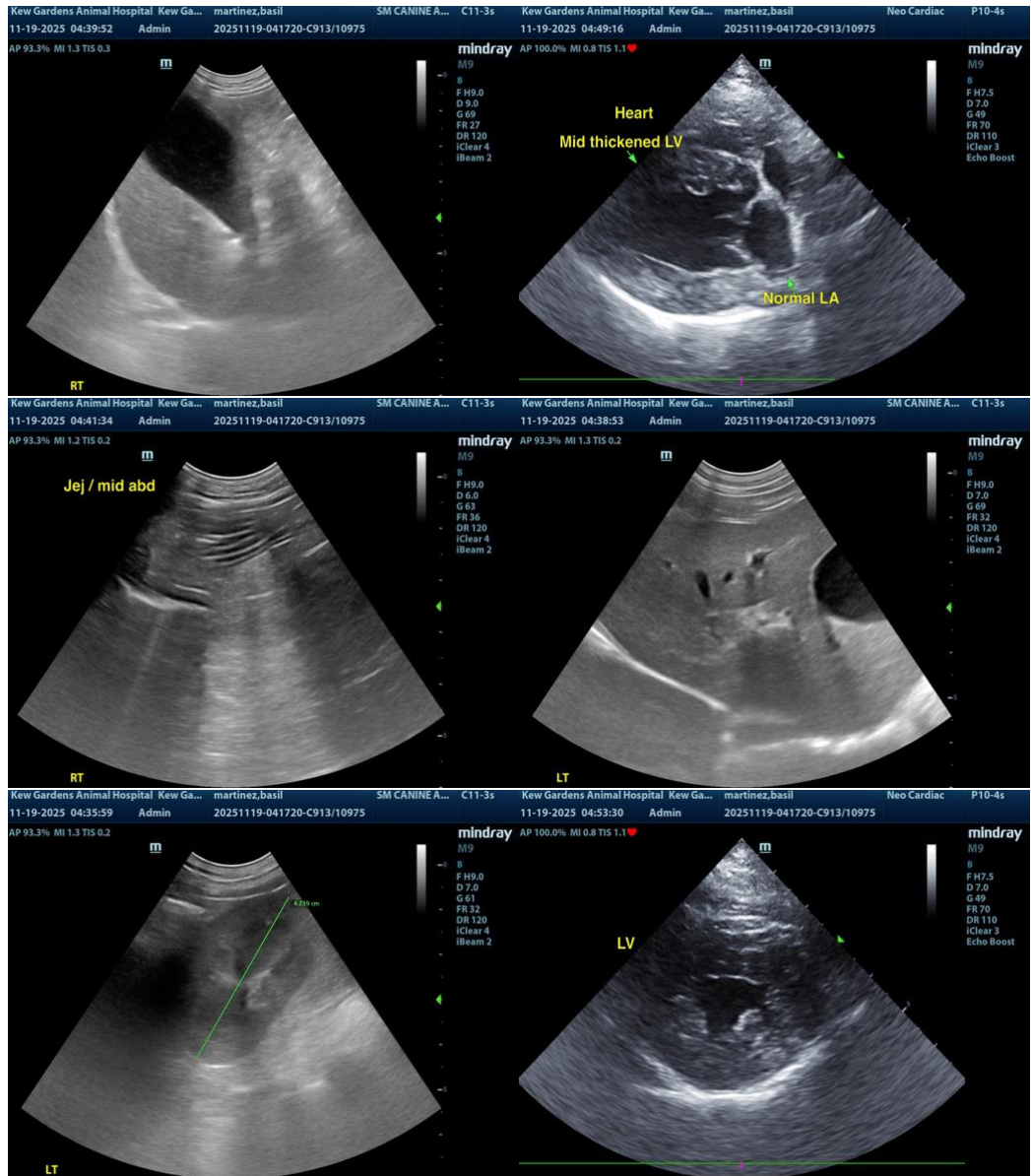
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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