



PATIENT

Ginger Desena

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

FS

AGE

13

WEIGHT

13.2

PRESENTING CLINICAL SIGNS

- tachypnea, increased RE crackles in all fields , no murmur appreciable through crackles Hx of Cushings Current meds Furosemide 2mg/kg q3hrs overnight IV Vetoryl 10mg SID PO Last abd u/s 10/28/25

Abnormal PE/Chem/CBC/UA Results: WBC 16.94 Neuts 14.34 BUN 32 ALP 722

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

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	--	3.8	--	1.39	40	74	0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	--	0.95	13.2	1.9	1.7	--

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal Hospital

REFERRING VET

Dr Salazar

INVOICE

24236

DATE

03/17/2026

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 mild irregular age-related changes/endocardiosis that are not clinically significant at this time with adequate extension in systole and union in diastole. No significant MR on Doppler. The left ventricle presented normal free wall and septal thicknesses with linear contour. The myocardium presented some echogenic remodeling consistent with expected 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. Subjective assessment of the right atrium and auricle revealed borderline to mild increased size, normal structure and content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated mild thickening with mild TR on Dopler. Estimated pulmonary pressure gradient ~ 60. The right ventricle was of mild increased size and increased free wall thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, and increased diameter compared to the aorta. No dilation due to heartworm disease, cor pulmonale, stenosis, or pulmonic hypertension was noted. 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 evidence of urine/lumen



PATIENT

Ginger Desena

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

FS

AGE

13

WEIGHT

13.2

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

Dr Salazar

INVOICE

24236

DATE

03/17/2026

sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

Normal size and margination were 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 4.1 cm in length. The right kidney measured 4.1 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

Both adrenal glands were asymmetrically enlarged, exhibiting non-homogenous nodular parenchyma without overt mineralization. The left adrenal gland measured 1.2 cm diameter. The right adrenal gland measured 0.54 cm width at the caudal pole and 1.2 cm width at the cranial pole.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

Liver/Gallbladder

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. Normal vascular volume. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with minor non-organized debris. No evidence of gallbladder/peripheral gallbladder inflammation or wall edema was present. The cystic and common bile ducts were normal.

Transdiaphragmatic view revealed comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. Chest radiographs are recommended to rule out alveolar/lung disease such as neoplasia, thromboembolic disease, chronic inflammatory disease with microconsolidation.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild non-shadowing ingesta sonographically suggestive of food echogenicity with no signs of obstruction or foreign material.

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 mechanical/metabolic ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas



PATIENT

Ginger Desena

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

FS

AGE

13

WEIGHT

13.2

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

Dr Salazar

INVOICE

24236

DATE

03/17/2026

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary

- Moderate pulmonary hypertension with associated pulmonic artery and right ventricle enlargement
- Bilateral asymmetrical to nodular adrenomegaly
- Non-congested hepatopathy
- Non-edematous gallbladder with minor non-organized bile sediment
- Transdiaphragmatic comet tail artifact

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of left heart congestion as a contributing factor to the respiratory signs. Currently the moderate pulmonary hypertension appears to be compensated given no evidence of hepatic congestion or ascites. Given patient history, primary lower airway disease, thromboembolic disease, possible neoplasia as contributing factors to the respiratory signs are all potentials. Correlation with three view chest radiographs is recommended.

No overt indication for diuretic therapy with continued Vetoryl and sildenafil trial 1-2 mg per kg PO BID with clinical monitoring warranted. Monitoring of systemic BP for evidence of hypertension which may potentially allude to emerging unilateral or bilateral neoplastic criteria, i.e. pheochromocytoma is recommended. Concurrent respiratory support is indicated. Recheck echo recommended 3-4 months, sooner if signs of progressive pulmonary hypertension.



PATIENT

Ginger Desena

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

FS

AGE

13

WEIGHT

13.2

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

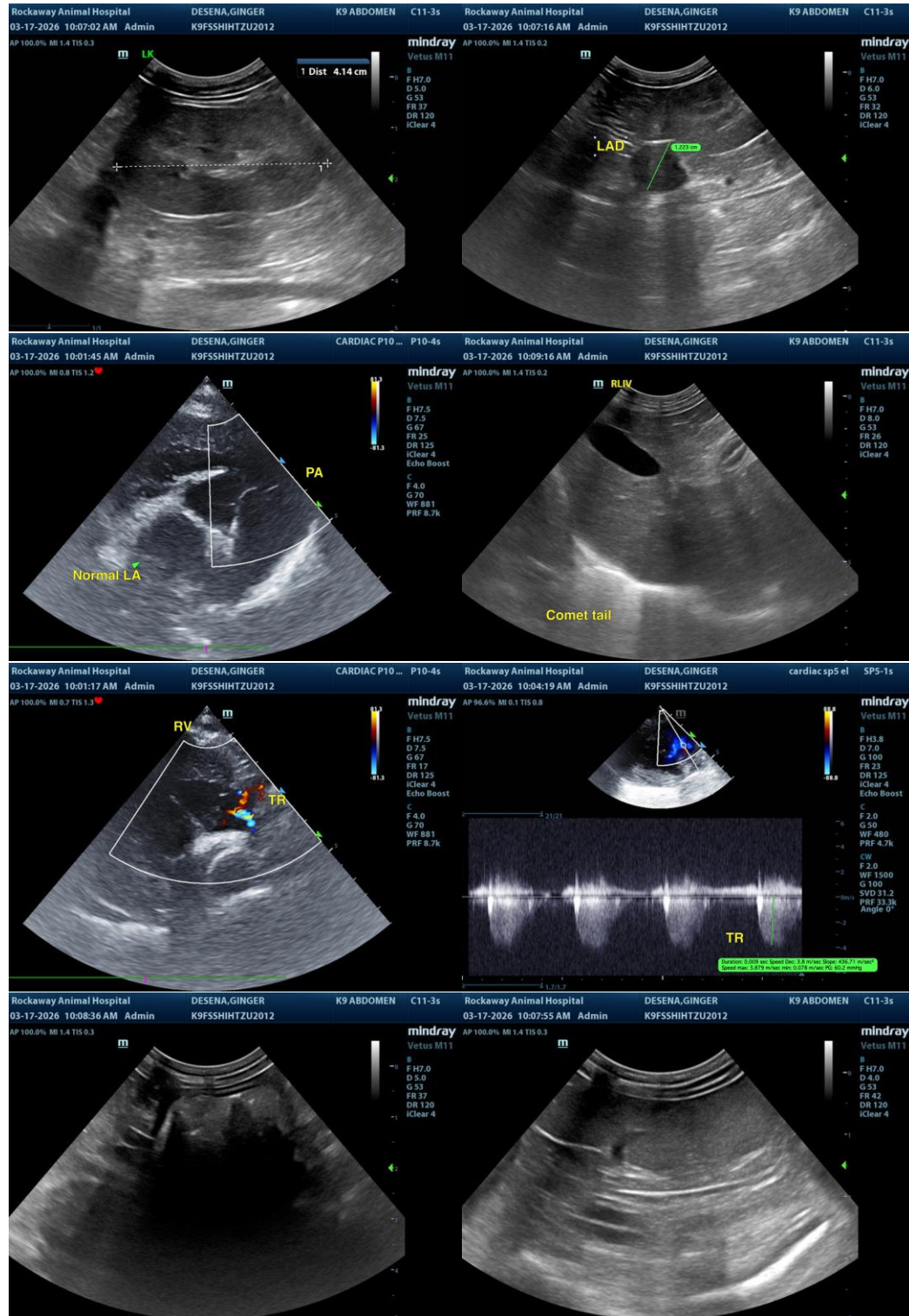
Dr Salazar

INVOICE

24236

DATE

03/17/2026





PATIENT

Ginger Desena

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

FS

AGE

13

WEIGHT

13.2

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

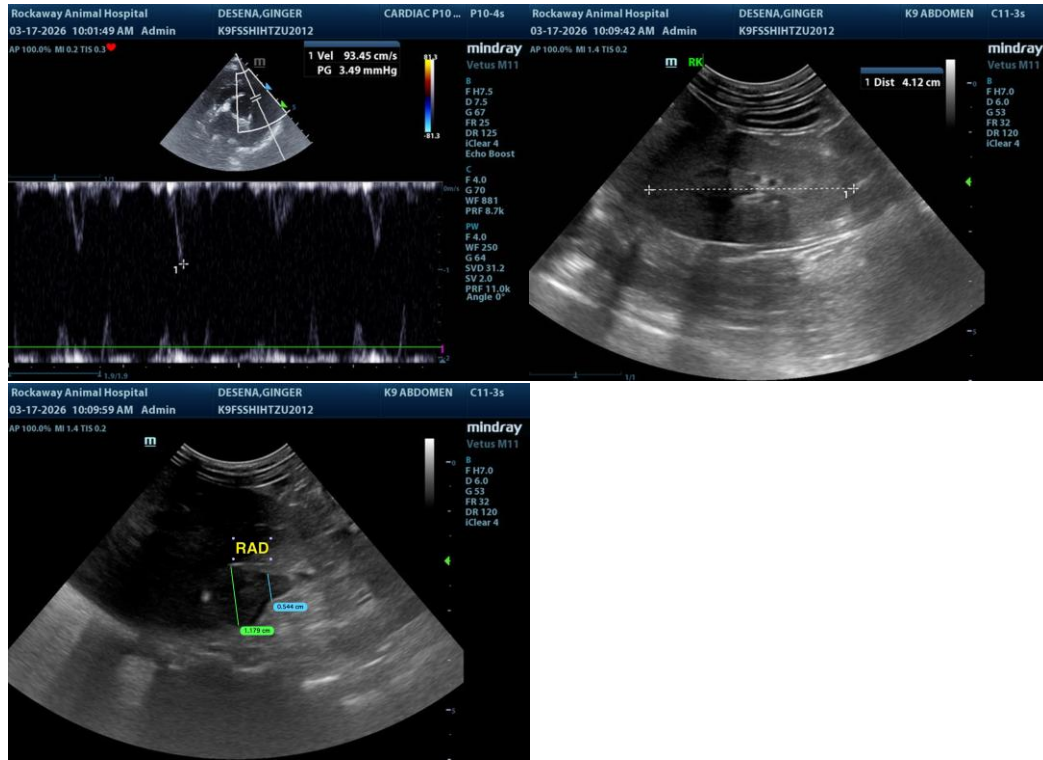
Dr Salazar

INVOICE

24236

DATE

03/17/2026



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)
info@sonopath.com