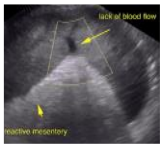
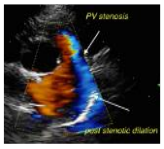
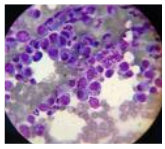
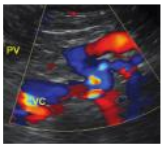
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Tango Russotti

SPECIES

Canine

BREED

Boston Terrier

SEX

MN

AGE

10 year, 5 mos.

WEIGHT

23.3 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazaquez

HOSPITAL NAME

Westwood Regional VH

REFERRING VET

Dr. Giammanco

INVOICE

15705

DATE

12/27/22

PRESENTING CLINICAL SIGNS

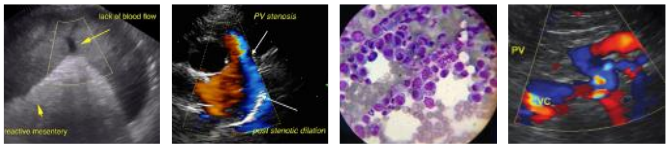
Chronic cough, pulmonary edema (right side); elevated liver enzymes. Recent bilateral clear nasal discharge, sometimes green, does not seem to resolve with any particular treatment. Current med: Doxycycline 5mgs/kg BID; given Lasix 3mgs/kg IV last night.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT		1.3	1.2	1.38	38	70	0.18
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**LA** 2D short axis Base view (cm)	**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	116	1.1	1.0		2.6	2.5	

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 was present on Doppler. The **left ventricle** presented borderline to mild prominent free wall and septal thicknesses with mild alinear contour. The **myocardium** presented some myocardial 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 normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated concurrent mild irregular age-related changes to mild thickening with mild TR on Doppler. 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). No dilation due to cuor pulmonale or overt pulmonic hypertension was noted. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window. No arrhythmia was noted.



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Tango Russotti

SPECIES
Canine

BREED
Boston Terrier

SEX
MN

AGE
10 year, 5 mos.

WEIGHT
23.3 lbs.

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

IMAGING PERFORMED BY
Kelly Vazaquez

HOSPITAL NAME
Westwood Regional VH

REFERRING VET
Dr. Giammanco

INVOICE
15705

DATE
12/27/22

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

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 5.4 cm in length. The right kidney measured 5.3 cm in length.

Adrenal Glands

The left adrenal gland was subtly prominent in size based on caudal pole width measurement in light of body weight. This is likely incidental without evidence of neoplastic criteria. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 1.8 cm length x 0.92 cm width in the caudal pole. No overt pathology was noted in the area of the right adrenal gland.

Spleen

The spleen was normal in size with areas of medial capsule asymmetry, as well as medial capsule fibrosis. Pinpoint hyperechoic splenic parenchyma foci were present intermittently to diffusely throughout the spleen. Normal splenic vascularity was noted with no masses or nodules present.

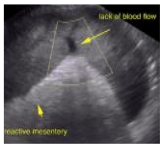
Liver/ Gallbladder

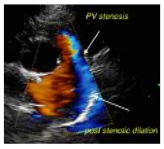
The liver was mildly enlarged in size with normal structure and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. A solitary, mild irregular, nonhomogeneous mass was present in the right lateral to caudate liver measuring 3.8 cm in diameter. The mass did not distort the hepatic capsule. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

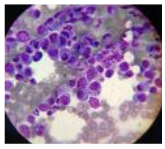
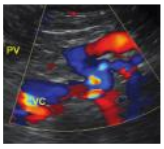
Transdiaphragmatic view revealed comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. Chest radiographs are recommended to rule out alveolar/lung disease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

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. Mild retained focally shadowing ingesta and potential for focally shadowing nonspecific gastric echo was noted, which may indicate ingesta or medication. Potential for small gastric foreign body is considered a less likely





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Tango Russotti

SPECIES

Canine

BREED

Boston Terrier

SEX

MN

AGE

10 year, 5 mos.

WEIGHT

23.3 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazaquez

HOSPITAL NAME

Westwood Regional VH

REFERRING VET

Dr. Giammanco

INVOICE

15705

DATE

12/27/22

differential diagnosis. The echo in the stomach measured approximately 1.5 cm in diameter and was nonobstructive.

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.

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

Pancreas

The parenchyma of the pancreas was hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Overtly normal cardiac structure and function with mild LV myocardial remodeling - possible mild LV pseudohypertrophy
- Mild TR - no evidence of clinical pulmonary hypertension / cuor pulmonale
- Mild hepatomegaly exhibiting parenchymal remodeling with nonspecific right lateral to caudate mass
- Bilateral mild chronic renal changes
- Chronic pancreatitis / fibrosis pattern
- Transdiaphragmatic comet tail artifact

Secondary Findings

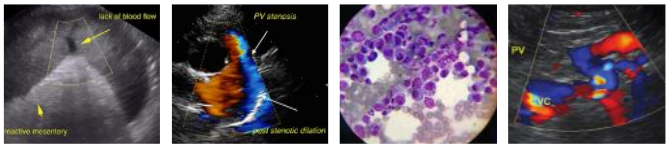
- Age-related benign splenic changes - myelolipomas, medial capsule fibrosis, pinpoint splenic microinfarction, mineralization, or parenchymal fibrosis possible

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Without evidence of left or right heart chamber enlargement or clinical pulmonary hypertension, the echocardiogram in this patient is not consistent with cardiogenic cough or pulmonary edema. Primary lower airway disease is likely. No indication for cardiac medications. Assessment of BP for evidence of systemic hypertension is suggested. As-needed respiratory support would be reasonable.

Assuming normal clotting status, FNA cytology of the right lateral to caudate liver mass for further assessment could be considered.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Tango Russotti

SPECIES

Canine

BREED

Boston Terrier

SEX

MN

AGE

10 year, 5 mos.

WEIGHT

23.3 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazaquez

HOSPITAL NAME

Westwood Regional VH

REFERRING VET

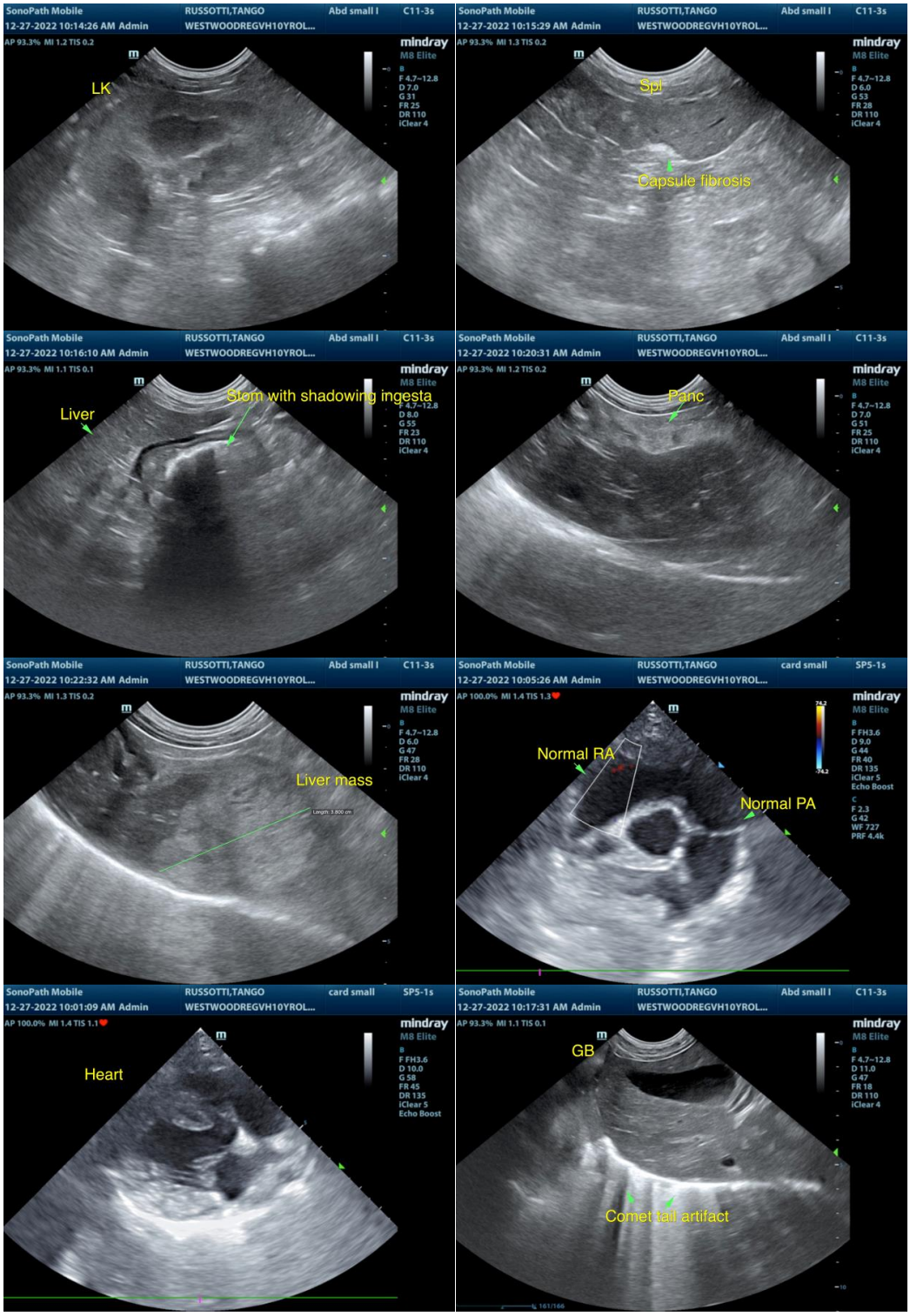
Dr. Giammanco

INVOICE

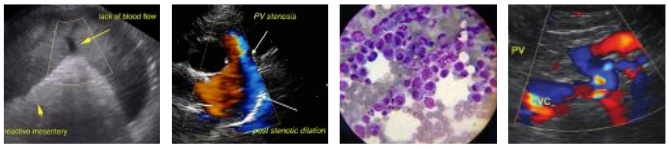
15705

DATE

12/27/22



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Tango Russotti

SPECIES

Canine

BREED

Boston Terrier

SEX

MN

AGE

10 year, 5 mos.

WEIGHT

23.3 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazaquez

HOSPITAL NAME

Westwood Regional VH

REFERRING VET

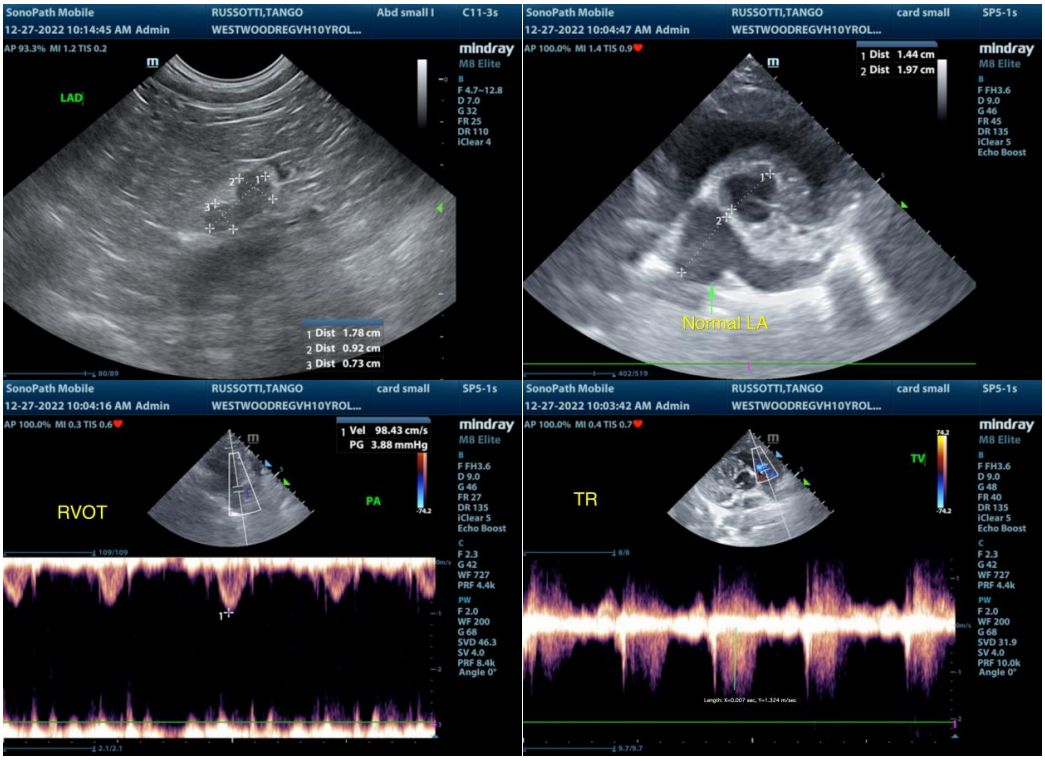
Dr. Giammanco

INVOICE

15705

DATE

12/27/22



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