



PATIENT

Peanut DeMayo

SPECIES

Canine

BREED

Shih Tzu

SEX

Female

AGE

14 Years

WEIGHT

25 Pounds

PRESENTING CLINICAL SIGNS

History: Trouble breathing, possible PHT and pneumonia. Current meds: Cough Tabs, Unasyn, O2.

Abnormal PE/Chem/CBC/UA Results: wbc 36.56 (17 H); Neuts 33.72 (12.3 H)

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	5.2	4.67	1.1	1.3			NM
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			.60		1.9		

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Vet

REFERRING VET

Dr. Chabora

INVOICE

17350

DATE

9/19/22

Cardiac Presentation

The **echocardiogram** presented complete filling of the right atrium on color flow assessment of the tricuspid valve. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. Pulmonic insufficiency was noted. No overt heartworms were noted in the main or visible deep pulmonary arteries. Yet, theoretically heartworms could be present in the deep pulmonary vasculature out of visible sonographic range. More likely, however, this prominent right heart is due to excessive intra-thoracic pressures caused by chronic respiratory disease or potentially excessive intra-thoracic fat (Pickwickian syndrome). The **left heart** demonstrated a linear **ventricular septum**. Contractility was functionally adequate demonstrated by the FS% measurement. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocarditis. Doppler indicated trivial insufficiency. The **left ventricular outflow** demonstrated normal flow patterns and velocities through the aortic valve. The visible **extra-cardiac** tissues were uniformly linear without evidence of masses, infiltrative or inflammatory mediastinal tissue. No evident arrhythmic activity was noted during the exam. Tricuspid insufficiency was severe at 4.67 m/s. The tricuspid insufficiency velocity was persistently elevated in the 4.5 m/s in various approaches. The hepatic veins were not dilated. Some pleural effusion was noted with microconsolidations of the lungs.

ULTRASONOGRAPHIC FINDINGS

- Pulmonary hypertension- moderate to severe
- Noncardiogenic pleural effusion
- Trivial mitral insufficiency



PATIENT

- Tricuspid insufficiency

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Primary respiratory/extracardiac thoracic disease is likely driving pulmonary pressures in this patient, causing severe pulmonary hypertension, however, hepatic veins were not dilated. No evidence of right sided failure at this time. The patient appears to be compensating for the pulmonary hypertension. I'm more concerned about the thoracic disease with pleural effusion. Chest CT would be warranted, as well as abdominal sonograph to assess for comorbidities. Sildenafil therapy could be considered at 1 mg/kg BID, however, the heart is not the primary issue at this point. Pleurocentesis could be considered, if accessible by the sonographer with cytospin +/- culture. Pneumonitis, thoracic neoplasia, thromboembolic disease are all possible. Chest CT is highly encouraged.

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SonoPath CT Services are offered at the [Blairstown Animal Hospital](https://sonopath.com/resources/sonopath-teleconsultation-services-and-sdep-certification/sonopath-ct-services). Blairstown animal hospital is just a 30-minute drive west on route 80 from the route 80/287 interchange/Parsippany, New Jersey. More information can be found at:

<https://sonopath.com/resources/sonopath-teleconsultation-services-and-sdep-certification/sonopath-ct-services>

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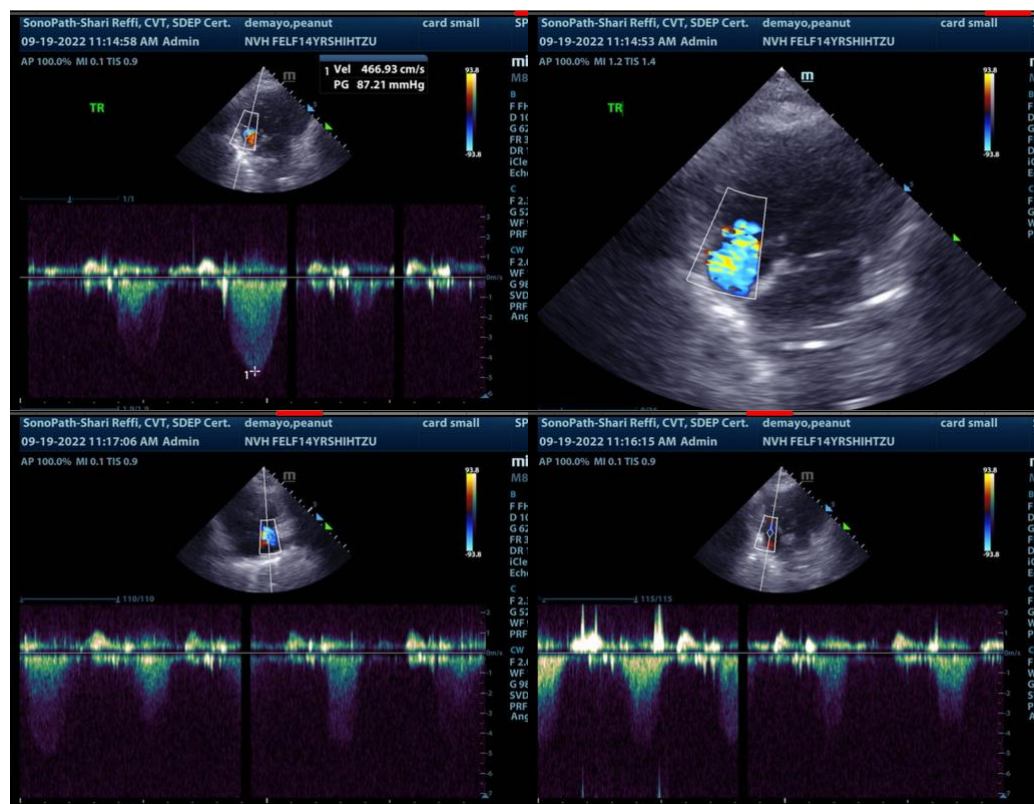
Dr. Chabora

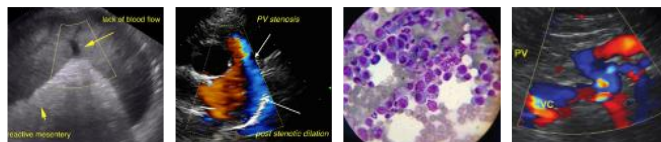
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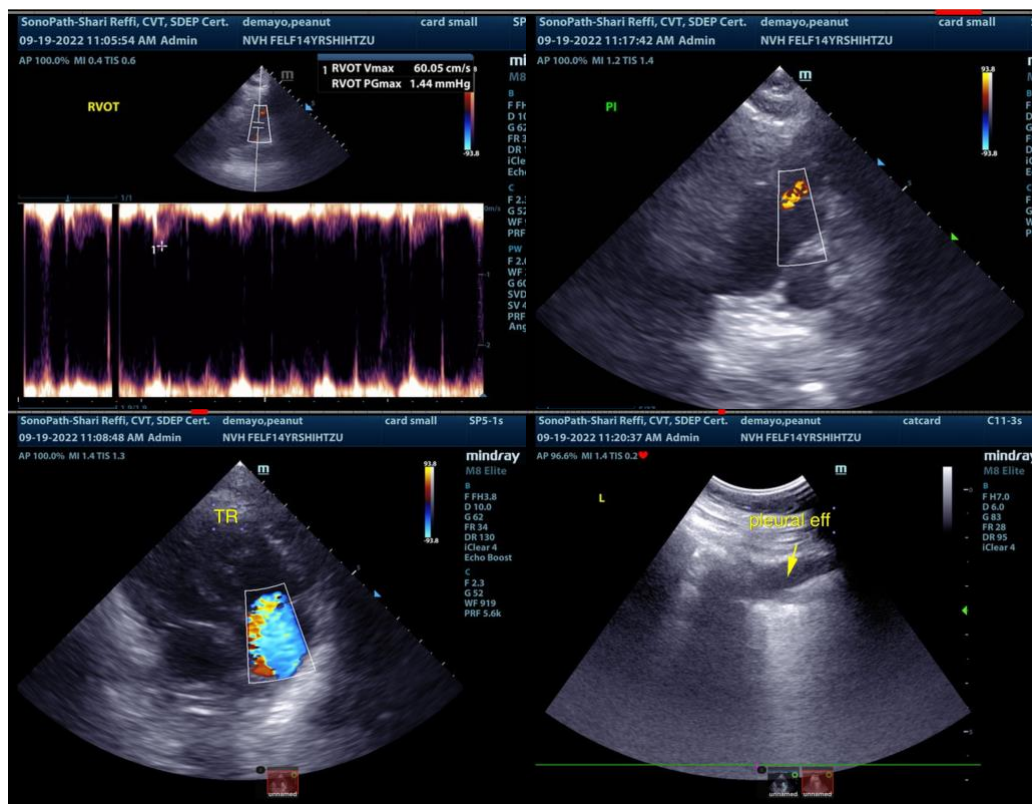
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
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