

PATIENT PRESENTING CLINICAL SIGNS

Delilah Toth
History: 3-week duration excessive panting. Weakness. Muffled heart sounds. Pale mucous membranes.
-Current medications: Novox, Gabapentin.

SPECIES ECHOCARDIOGRAM FINDINGS

Canine
Breed: Bulldog Mix
SEX: Female Spayed
AGE: 10 years
WEIGHT: 84.2lbs
Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Trace mitral regurgitation with normal left atrial dimension. Normal LV diameter with normal myocardial function. The tricuspid valve appears mildly thickened with mild tricuspid regurgitation. Velocity consistent with mild pulmonary hypertension. Mild right heart and MPA prominence. The pulmonic and aortic valves are normal in morphology and mobility. No obvious aortic or pulmonic insufficiency. Normal pulmonic and aortic outflow velocities. No pericardial or pleural effusion noted. No cardiac tumors observed.

CARDIAC CHART

INTERPRETED BY
Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

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	<1.6	28-40	40-100	<0.6
PATIENT	NM	2.9	NM	1.3	31	60	0.7
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	BELOW	BELOW	BELOW	BELOW
PATIENT	120	1.5	1.2	38.2	3.1	4.8	3.3
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most significant finding is mild pulmonary hypertension, as evidence by an elevated TR velocity and mild right heart enlargement. The left heart is largely normal with a small mitral leak that is hemodynamically insignificant at this time. No additional issues are identified.

The underlying genesis of PAH is poorly understood in cases other than heartworm infestation, though it occurs with increased frequency in a variety of forms of airway disease and in patients with idiopathic pulmonary fibrosis. In a dog with upper respiratory disease this likely the primary issue in this case. Clinical signs of weakness, heavy breathing, and syncope are attributed to severe PAH, and may develop in the future.

Given the history, signalment and echocardiogram findings, this patient has airway disease that over time has begun to affect the heart (PAH) creating early pressure elevation. In other words, the symptoms are non-cardiac in origin; however, PAH may be developing secondary to it. It is important to note the PAH is considered early given only mild changes and does not warrant therapy at this time.

REFERRING VET

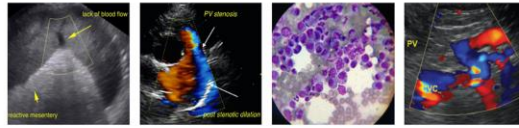
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PATIENT Recommend continued airway workup and/or treatment (i.e., TTW, BAL and/or broad-spectrum pulmonary antibiotics such as Baytril, aggressive Hydrocodone, theophylline, etc.). Omega fatty acid supplementation may be of some long-term benefit.

Delilah Toth

SPECIES No cardiac contraindication for general anesthesia. Pre-oxygenating for 5-10 minutes is recommended prior to induction.

Canine

BREED Monitor for development of a labored breathing, worsening cough, exercise intolerance or collapse episodes in the future.

Bulldog Mix

PLAN:

Consider airway work up/treatment as discussed.

SEX

Recommend recheck echocardiogram in 6-12 months to screen for progression, sooner if any associated clinical signs are noted.

Female Spayed

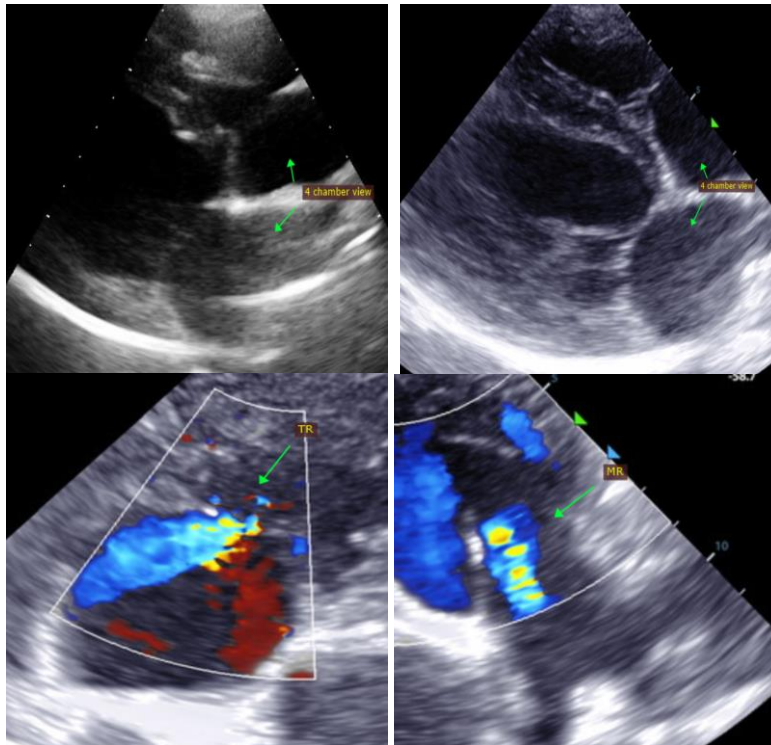
AGE

10 years

IMAGES

WEIGHT

84.2lbs



INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Rebekah Jakum, CVT ARDMS/RVT

HOSPITAL NAME

Dr. Sam's VHC

REFERRING VET

Dr. Truitt

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.

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Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

DATE

8/17/22

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)