



**PATIENT**

Apache Blue Stracco

**SPECIES**

Canine

**BREED**

Pitbull Mix

**SEX**

Male Neutered

**AGE**

10 years

**WEIGHT**

82lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Christensen, DVM

**HOSPITAL NAME**

Tranquility VC

**REFERRING VET**

Dr. Christensen

**INVOICE**

45653

**DATE**

11/5/25

**PRESENTING CLINICAL SIGNS**

History: Presented for mass removal. Preop ECG showed first degree AV block. BNP: 2659. CXR showed cardiomegaly (VHS: 11.3, VLAS: 2.2). Has been on a grain-free food. No murmur.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Normal mitral valve leaflets with no obvious prolapse into the left atrial lumen. Trivial mitral regurgitation. No left atrial dilation. The LV is borderline diastole with mild dilation in systole (LVIDdN: 1.59, LVIDsN: 1.20). The LV function is mildly decreased. The tricuspid valve appears subjectively normal with trace/mild TR. Normal velocity. No right heart enlargement. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities; laminar flow. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac or extra-cardiac tumors identified.

**CARDIAC CHART**

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	NA	2.0	1.3	1.3	22	40	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	BELOW	BELOW	BELOW	BELOW
PATIENT	112	1.1	1.0	37.2	2.6	4.6	3.6
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				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)

Adapted from June Boon, Veterinary Echocardiography, 1998  
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435  
Hansson et al, Vet Rad and Ultrasound 2002  
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Mild left heart changes are identified, including mild LV dilation and systolic dysfunction. It is unclear if these changes are consistent with early dilated cardiomyopathy phenotype (suspected in light of BNP elevation) or are simply a normal variant. Serial monitoring is advised. No significant valve leaks are noted, and flow through the great vessels is normal (trivial MR/TR likely physiologic). No additional issues are present.

Given the echo findings and the recent evidence of nontraditional diets leading to DCM in some (but certainly not all) dogs, highly recommend change to a more standard well formulated diet. A



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taurine level can be submitted; however, regardless of results recommend a taurine supplement in this case as below. Other possible contributing issues such as hypothyroidism can also be considered. Monitoring for progression is advised. No clear indication for Pimobendan at this juncture, however if any progression or clinical signs are noted this will be advised.

These findings are unrelated to reported AV block. Follow up should be dictated by the ECG report (high vagal tone v other).

Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

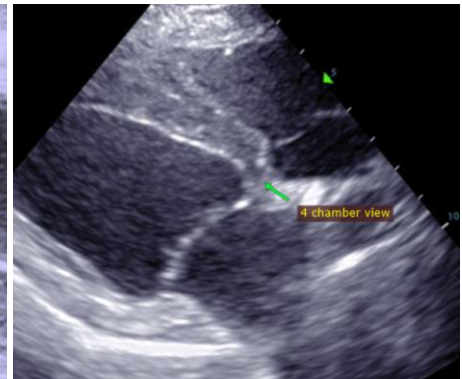
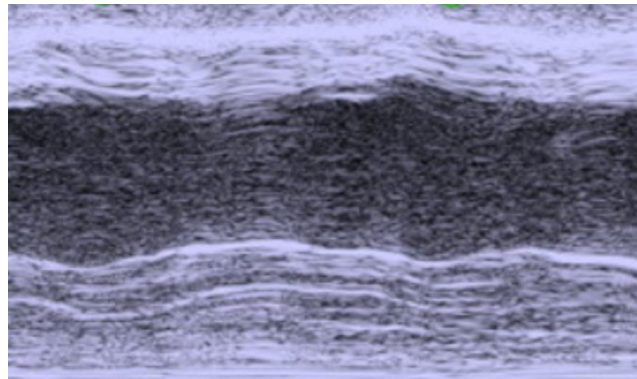
Anesthetic risk is considered mild. Pre-medicate with a vagolytic if appropriate. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid alpha 2 agonists.

## PLAN

Diet change ASAP. Taurine supplement, 1000mg q12h. Consider a thyroid level.

Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

## IMAGES



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. 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.

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