



PATIENT

Yoshi Munera

SPECIES

Canine

BREED

Pomeranian

SEX

Male Neutered

AGE

11 years

WEIGHT

14.1lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Graham Sager-Gellerman, DVM

HOSPITAL NAME

Back Bay Veterinary
Clinic

REFERRING VET

Dr. Edwards

INVOICE

46767

DATE

2/10/26

PRESENTING CLINICAL SIGNS

History: Received a pre-med of trazodone 6.3mg/kg PO, methadone 0.4mg/kg IM, and dexmed 3mcg/kg IM. Was mildly/borderline hypotensive (MAP 65-70mmHg) and bradycardic (HR 60s) but stable. Just before the 2-hour mark of anesthesia, Ps HR jumped from the 60s to 100, the quickly down to 50, and then there was a suspected couple seconds of asystole in which ECG was flat, but SpO2 was reading stable HR. Upon immediate auscultation, HR remained ~35bpm w/ regularly irregular rhythm. No obvious wavelength abnormalities on ECG. Gave antisedan and nalaxone. No change in HR or rhythm. Gave epinephrine 0.01mg/kg given IV at first sign of progressing bradycardia, limited response of HR to ~50bpm for 15-30 seconds. Gave atropine 0.04mg/kg IV and HR increased to ~65bpm for 1-2 minutes. Repeated epinephrine once more when HR dropped back to 30bpm, arrhythmia remained present during this time. Was extubated 2-3 minutes later. HR remained stable at 100bpm and arrhythmia resolved a couple minutes following extubation. Initially dysphoric, resolved after initial 2-3 minutes. No murmur. Assess prior to dental. CBC/Chem (12/9/25): Potassium 3.9, otherwise NSF. Sedated with butorphanol 0.3mg/kg + midazolam 0.2mg/kg + alfaxalone 0.5mg/kg.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Trace/mild eccentric mitral regurgitation with no left atrial dilation (LA:Ao <1.4). Normal LV diameter with adequate myocardial function. The tricuspid valve appears mildly thickened with trace tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic outflow velocities with laminar flow. No obvious aortic and trace pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

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	NM	NM	1.4	1.3	47	90	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	NM	NM	1.1	11.4	1.5	2.1	1.2
*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)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				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)

Adapted from June Boon, Veterinary Echocardiography, 1998



PATIENT

Yoshi Munera

SPECIES

Canine

BREED

Pomeranian

SEX

Male Neutered

AGE

11 years

WEIGHT

14.1lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Graham Sager-Gellerman, DVM

HOSPITAL NAME

Back Bay Veterinary
Clinic

REFERRING VET

Dr. Edwards

INVOICE

46767

DATE

2/10/26

Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435	35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Hansson et al, Vet Rad and Ultrasound 2002	40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
Bonagura et al. Echocardiography: principles of interpretation, Vet	50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing trace/mild mitral and tricuspid regurgitation. Lack of significant left atrial enlargement indicates the current risk for complication is low. No concurrent issues such as systolic dysfunction or pulmonary hypertension are noted in this study.

These findings would suggest the anesthetic event was unlikely to be due to subclinical cardiac disease. A drug reaction is most likely, as is commonly with Dexmedetomidine. Consider avoiding this medication in the future and/or pursuing a consultation with an Anesthesiologist.

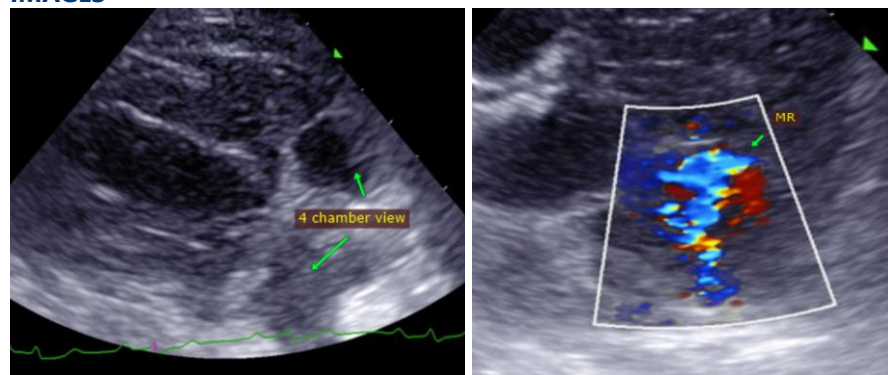
No cardiac medications are clearly indicated, as no benefit has been shown to providing therapy for dogs in stage B1. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.

Assessment of progression in the future will help predict long term prognosis, which is highly variable with stage B1 disease. Many B1 dogs will remain asymptomatic with slow progression for years to come.

No cardiac contraindication for general anesthesia prior to chamber enlargement.

Recommend conservative monitoring with a recheck echocardiogram in 6-12 months to assess rate of progression, sooner if any development of clinical signs in the interim.

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



PATIENT

Yoshi Munera

SPECIES

Canine

BREED

Pomeranian

SEX

Male Neutered

AGE

11 years

WEIGHT

14.1lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Graham Sager-
Gellerman, DVM

HOSPITAL NAME

Back Bay Veterinary
Clinic

REFERRING VET

Dr. Edwards

INVOICE

46767

DATE

2/10/26

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.

Maggie Machen Lamy, DVM

Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

info@sonopath.com