


PATIENT

Mia Ewig

PRESENTING CLINICAL SIGNS

History: Grade III/VI heart murmur. Occasional coughing. Assess prior to dental.

SPECIES

Canine

BREED

Yorkie

SEX

Female Spayed

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is thickened with abnormal motion appreciated. There is mild to moderate eccentric mitral regurgitation present, likely secondary to SAM. Normal velocity. There is mild left atrial dilation. The left ventricle diameter is normal with adequate systolic function. Left ventricular wall thicknesses are globally increased (0.75cm). The aortic valve appears normal. No aortic insufficiency. There is an elevated LVOT velocity with a dynamic profile. The RVOT velocity is normal. No PI. Right atrial and right ventricular dimensions are subjectively normal. The tricuspid valve is normal with no tricuspid regurgitation. The pulmonary artery and pulmonic valve are normal. No pericardial/pleural effusion or cardiac masses are seen.

CARDIAC CHART
AGE

8 years

WEIGHT

5.6lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM, DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

 Basking Ridge Animal
 Hospital

REFERRING VET

Dr. Hollo

INVOICE

27619

DATE

11/22/22

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	5.5	NA	1.4	1.5	57	90	0.12
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	4.0	0.8	2.5	1.6	1.7	0.7
*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)
				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

Unusual case. The mitral valve leaflets appear thickened with a dynamic LVOT obstruction and LVH, which is most consistent with a dysplastic mitral valve. Murmur history would be helpful to determine if this is a congenital issue or atypical degeneration. Regardless there is significant pressure overload as the LV walls are increased. The valve abnormality is also causing mitral regurgitation, which can lead to left atrial enlargement over time. Baseline lab work and BP are recommended to rule out concurrent issues. No additional issues are identified.



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Given these findings, consider use of rate control with Atenolol therapy as below. Pending BP assessment, further vasodilator therapy may be warranted. No obvious indication for additional medications at this time. Prognosis is guarded long term, given the highly unusual nature of the findings.

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

BREED

Yorkie

Anesthetic risk is considered mild if needed. 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 heart rate stimulating drugs such as atropine unless clinically indicated.

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PLAN

Screening BP and lab work is recommended. Institute Atenolol 25mg tablets ¼ tab PO q24h. Assess response in 5-7 days, with a target HR <130bpm. Up-titrate to effect.

WEIGHT

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A recheck echocardiogram is recommended in 6 months to screen for progression.

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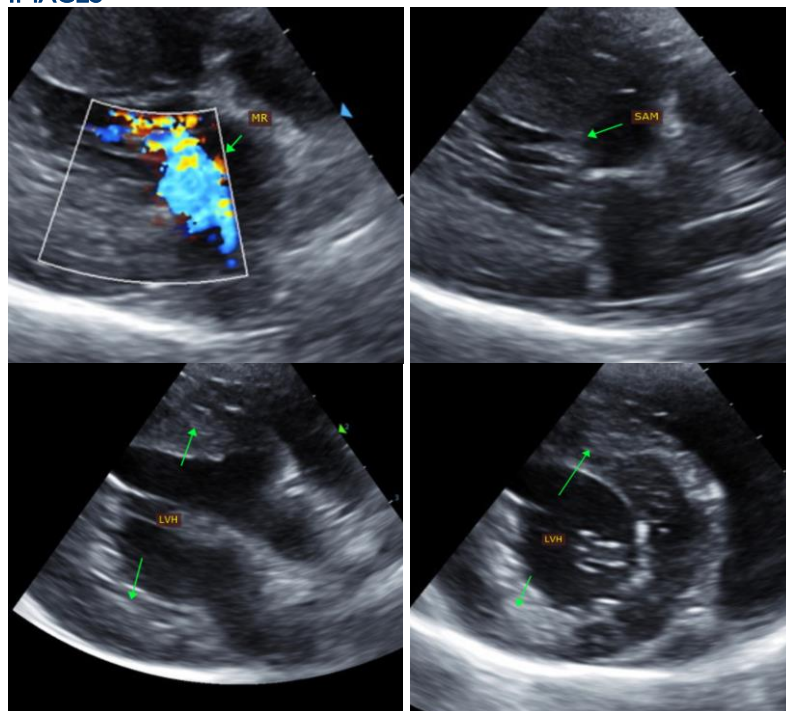
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IMAGES





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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. 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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