



PATIENT PRESENTING CLINICAL SIGNS

BMO Preman

SPECIES

Canine

BREED

Shih Tzu

SEX

Female Spayed

AGE

3 years

WEIGHT

11.7lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Mass Veterinary Services

REFERRING VET

Dr. Masloski

History: Recheck echo. History mitral valve dysplasia with SAM and LVOT obstruction. The degree of obstruction was severe on initial echocardiogram in April 2020. Atenolol was instituted. Follow up echo December 2020, showed marked improvement with resolution of the LVOT obstruction and decreased in the LVH. The MR severity decreased from moderate to trivial. Currently, she had some coughing noted two days ago but not since. Her activity has been limited but she does not have any known exercise intolerance. Good appetite. On auscultation, NSR, grade III/VI murmur with PMI left apical area, PSS, lung fields clear. BP: 140-150mmHg.

-Current medications: Atenolol 8mg/ml 0.3mls in the morning *No sedation for study.
-Pertinent previous echo findings (12/18/20, Tai Casagrande, DVM, DACVIM): LA 1.87 cm; LA:Ao 1.41; LV 2.05 cm; IVS 0.67 cm; PW 0.67 cm; LVOT 1.8 m/s - normal LA size; thickened anterior MV leaflet attached by short chordae and sitting persistently within the LVOT; mild SAM; mild LVH, turbulent LVOT flow.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.

Left atrium: The left atrium is normal.

Mitral valve: The anterior leaflet of the mitral valve is significantly thickened with abnormal motion seen in systole. No significant mitral regurgitation.

Aortic valve/aorta: The aortic valve is normal in morphology and mobility. Borderline elevated aortic outflow velocity; laminar flow. No aortic insufficiency.

Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.

Right atrium: Normal RA dimension.

Tricuspid valve: The tricuspid valve appears normal with trace tricuspid regurgitation; normal velocity.

Pulmonic valve/pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

Heart rhythm: ECG reveals a sinus rhythm with an average HR of 120bpm.

2-Dimensional Measurements

Ao diam (cm)	1.3
LA diam (cm)	1.7
LA:Ao (Swe)	1.3
IVS thickness (cm)	0.7
LVID diastole (cm)	2.1
PW thickness (cm)	0.7
LVID systole (cm)	1.1
FS (%)	50

Doppler Measurements

PV Vmax (m/s)	1.0
AoV Vmax (m/s)	2.1
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INVOICE INTERPRETATION OF THE FINDINGS

22580

DATE

2/15/22

Mitral valve dysplasia persists with apparently good control. The overall cardiac structure and function is persistently normal with minimal abnormal motion identified here. The LA and LV dimensions are similar to the previous study without evidence of significant pressure overload. The LVOT obstruction seen here is minimal and no additional issues are identified.



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Prognosis is open long-term. This patient is still at risk for developing chronic valve changes, which may lead to additional issues in the future. Serial monitoring is advised.

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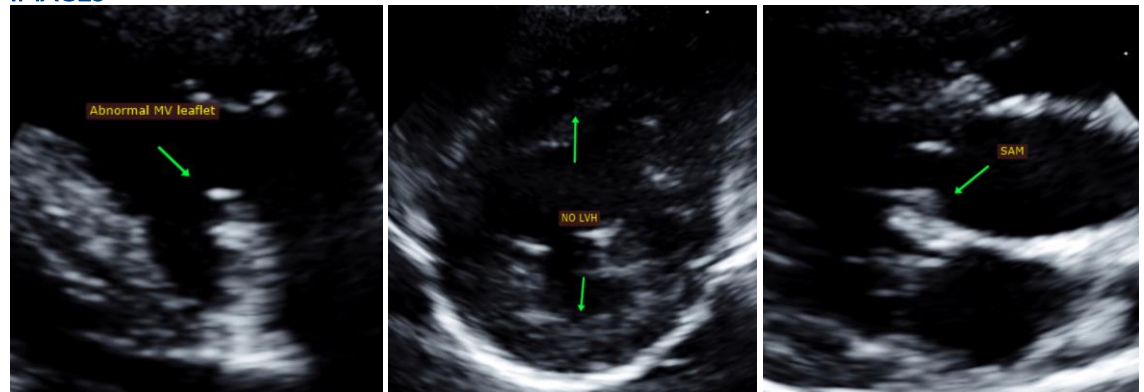
RECOMMENDATIONS

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

PLAN

- Recommend conservative monitoring with a recheck echocardiogram annually, sooner if any development of clinical signs.

IMAGES



HOSPITAL NAME
Mass Veterinary Services

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.

REFERRING VET
Dr. Masloski

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.

INVOICE
22580

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

DATE
2/15/22

Echocardiogram performed by: Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)