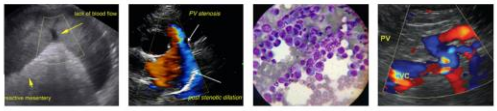
Mass Veterinary Specialty Services
1-413-734-1292



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Norman Domurat

SPECIES
Canine

BREED
Shih Tzu

SEX
Male Neutered

AGE
15 years

WEIGHT
17lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Specialty Services

REFERRING VET
Dr. Masloski

INVOICE
21128

DATE
9/21/21

PRESENTING CLINICAL SIGNS

History: Recheck echo. History chronic valvular disease - Stage B2. Current presentation: Norman is slowing down at bit at home with some exercise intolerance but assumed to be age-related. Good appetite with mild weight gain. CV/RESP: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear. BP: 140mmHg x 4.
-Current medications: 1) Pimobendan 3.75mg 1/2 tab twice a day 2) Enalapril 2.5mg 1 tab once a day 3) SAMe 200mg daily 4) milk thistle daily *No sedation.
-Pertinent previous echo findings (5/7/20 MML): LA 2.2 cm; LA:Ao 1.6; LV 2.9 cm; mild LAE; moderate MR; mild TR (2.3 m/s).

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is mild to moderately increased in dimension with hyperdynamic myocardial function. LV wall thicknesses are normal.
Left atrium: The left atrium is moderate to severely dilated.
Mitral valve: The mitral valve is diffusely thickened with significant prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with a normal velocity.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal 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 mild tricuspid regurgitation; velocity consistent with early pulmonary hypertension.
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 180bpm.

2-Dimensional Measurements

Ao diam (cm)	1.4
LA diam (cm)	2.8
LA:Ao (Swe)	2.0
IVS thickness (cm)	0.64
LVID diastole (cm)	3.5
PW thickness (cm)	0.68
LVID systole (cm)	1.1
FS (%)	69

Doppler Measurements

PV Vmax (m/s)	1.3
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	6.2
TR Vmax (m/s)	2.6
TR PG (mmHg)	28

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease persists with evidence of progression. Moderate mitral regurgitation has become severe with increased LA and LV dimensions comparatively. The right heart is stable with mild TR and no significant pulmonary hypertension. No additional issues are identified.

Given these findings, I would consider institution of Spironolactone for potential long-term benefit, even without obvious clinical signs. Continue Pimobendan and Enalapril as prescribed. Prognosis remains guarded at this stage (B2).

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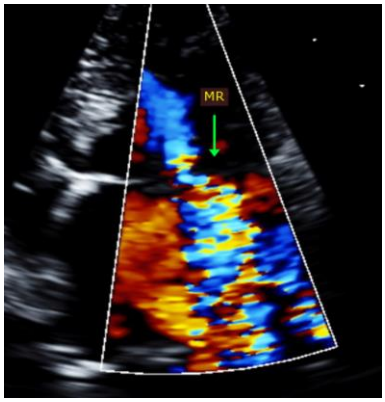
RECOMMENDATIONS

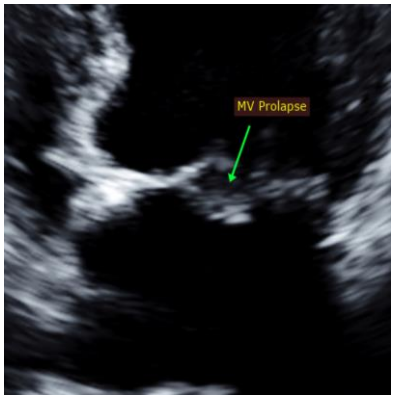
- Continue Pimobendan and Enalapril as prescribed.
- Institute Spironolactone 1-2mg/kg PO q12h.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Elective anesthesia should be avoided as the risk is increased compared to prior studies. Cardiac protective 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.

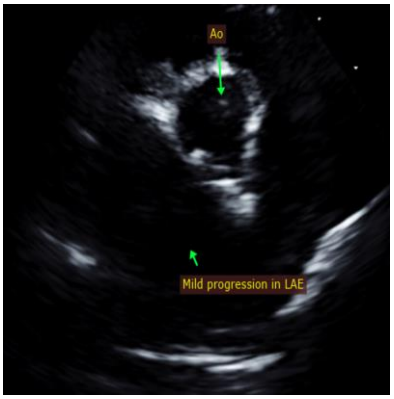
PLAN

- Recommend conservative monitoring with a recheck echocardiogram 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.

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

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