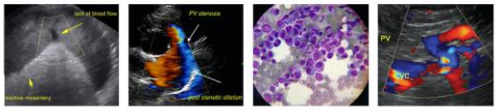
Mass Veterinary Specialty Services
1-413-734-1292



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

PATIENT
Buddie Delacruz

SPECIES
Canine

BREED
Poodle Mix

SEX
Male Neutered

AGE
12 years

WEIGHT
9.13lbs

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
21475

DATE
10/12/21

PRESENTING CLINICAL SIGNS

History: Recheck echo. History chronic valvular disease - Stage B1. Currently: He has been hacking/coughing sporadic with the cough being more pronounced after drinking. His respirations remain normal as does his appetite and activity level. CV/RESP: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear. BP: 110mmHg x 5. No medications.
-Pertinent previous echo findings: LA 1.53 cm; LA:Ao 1.45; LV 2.28 cm; moderate-severe MR; LA UNL; normal LV size. *No sedation for study.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: Mild LV dilation with hyperdynamic function. LV wall thicknesses are normal.
Left atrium: The left atrium is moderately dilated.
Mitral valve: The mitral valve is diffusely thickened with significant prolapse into the left atrial lumen. Moderate to severe eccentric mitral regurgitation with a normal velocity.
Aortic valve/Aorta: The aortic valve appears thickened. Normal aortic outflow velocity; laminar flow. Moderate 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 thickened with septal prolapse and trace tricuspid regurgitation.
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)	1.1
LA diam (cm)	2.0
LA:Ao (Swe)	1.88
IVS thickness (cm)	0.58
LVID diastole (cm)	2.5
PW thickness (cm)	0.57
LVID systole (cm)	1.2
FS (%)	52

Doppler Measurements

PV Vmax (m/s)	0.65
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	5.3
TR Vmax (m/s)	NM
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing moderate to severe mitral and trace tricuspid regurgitation. Moderate left atrial enlargement indicates there is relatively low risk for imminent complication, however risk for progression to spontaneous congestive heart failure in the future is elevated. A significant aortic leak is noted which should be monitored going forward. No additional issues are identified. Compared to what is described in the prior study, there is certainly evidence of progression with mild disease becoming moderate to severe.

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Given these findings, Pimobendan is recommended as below. An ACE-I would be ideal due to aortic insufficiency; however, the reported blood pressure is low. Reassessing in the future is advised with institution of an ACE-I if >130mmHg. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).

The cough is suspected to be due to a combination of mainstem bronchi compression and potentially airway disease in this predisposed breed. Screening CXR, hydrocodone, etc. may be useful.

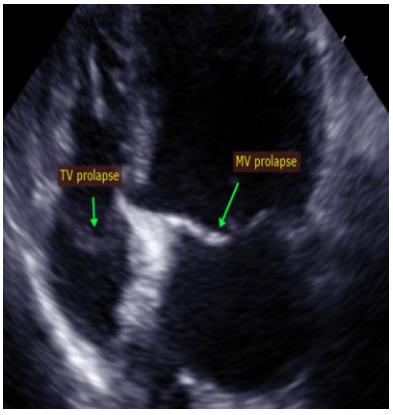
RECOMMENDATIONS

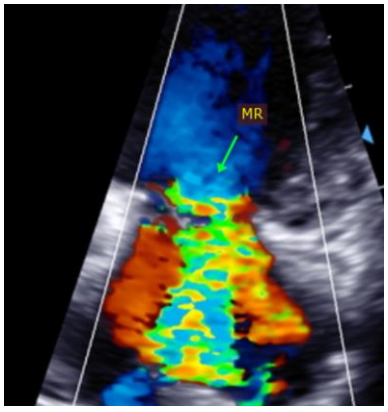
- Institute heart muscle support Pimobendan 0.3mg/kg PO q12h.
- Monitor BP every 3-4 months, if >130mmHg institute ACE-I 0.5mg/kg PO q12h.
- Consider CXR, hydrocodone, etc. as discussed.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Once on Pimobendan for 3-5 days, 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.

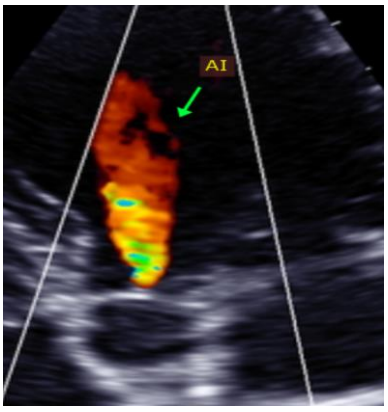
PLAN

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

IMAGES







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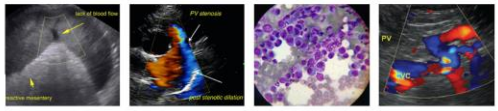

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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)