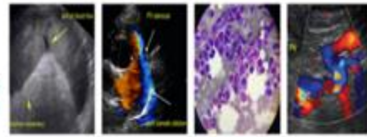
Mass Veterinary Services



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

PATIENT
Lucy Sticca

SPECIES
Canine

BREED
Boston Terrier

SEX
Female Spayed

AGE
10 years

WEIGHT
37.5lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
24402

DATE
5/25/22

PRESENTING CLINICAL SIGNS

History: Lucy was noted to have a heart murmur in September 2020. She needs dental prophy. Overweight. Pants when excited but no dyspnea or exercise intolerance. Good appetite and normal activity level. Intentional 8-9lb weight loss. On exam today: NSR, grade III/VI murmur with PMI left apical area, PSS, lung fields clear. BP: 170mmHg x 4, 180 mmHg x 1. Current medications: Apoquel 16mg 1/2 tab twice a day for seasonal skin allergies. *No sedation for study

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is minimally increased with adequate function. LV wall thicknesses are normal.
Left atrium: The left atrium is mild to moderately dilated.
Mitral valve: The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. Moderate anterior-directed mitral regurgitation with a normal velocity.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. Trace 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 mildly thickened with mild 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 130bpm.

2-Dimensional Measurements

Measurement	Value
Ao diam (cm)	1.9
LA diam (cm)	3.1
LA:Ao (Swe)	1.6
IVS thickness (cm)	1.1
LVID diastole (cm)	3.9
PW thickness (cm)	1.1
LVID systole (cm)	1.8
FS (%)	53

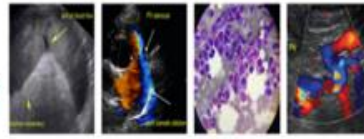
Doppler Measurements

Measurement	Value
PV Vmax (m/s)	0.82
AoV Vmax (m/s)	1.6
MR Vmax (m/s)	5.8
TR Vmax (m/s)	2.4
TR PG (mmHg)	23

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing moderate mitral and mild 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 small aortic leak is noted, and the blood pressure is mildly elevated, follow up screening is advised. No additional issues are identified.

Given these findings, Pimobendan is recommended as below. This is a conservative approach as the patient is borderline based upon the EPIC criteria. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).



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The reported blood pressure is elevated and should be reassessed for accuracy particularly given no reported clinical signs of severe hypertension (retinal changes, etc.) or evidence of LVH on echo. Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. If persistently >180mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect. Additionally, if deemed accurate, screening for predisposing underlying causes of SHT is recommended (Cushings, PLN, adrenal tumor, etc.), as primary disease is relatively uncommon and a rule out diagnosis.

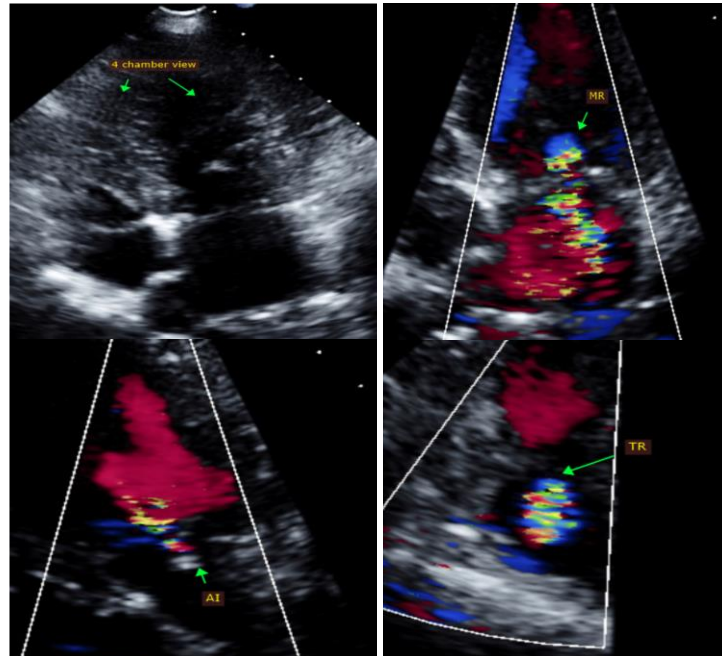
RECOMMENDATIONS

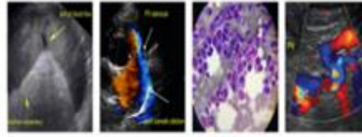
- Institute heart muscle support Pimobendan 0.3mg/kg PO q12h.
- Reassess BP as discussed.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Once on Pimobendan for 3-5 days, anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine 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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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)