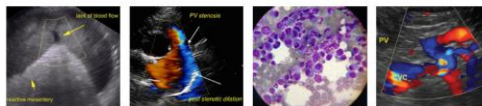


PATIENT
Kipper Ramirez

SPECIES
Canine

BREED
Chihuahua

SEX
Male Intact

AGE
14 years

WEIGHT
4.12lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
East Boston Animal Medical Center

REFERRING VET
Dr. Chopra

INVOICE
29099

DATE
2/17/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. History chronic valvular disease - Stage B2. Presently, he is doing well, good appetite and normal energy. Current medications: Pimobendan 1.25mg, 1/2 BID; Enalapril 5mg, 1/2 AM, 1/4 PM.
-Pertinent previous echo findings (7/22 MML): LA 1.8, LA: Ao: 2.2, LV: 2.5. Severe LAE, severe MR, mild TR.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is increased with hyperdynamic myocardial function. LV wall thicknesses are normal.
Left atrium: The left atrium is marked dilated.
Mitral valve: The mitral valve is diffusely thickened with significant prolapse into the left atrial lumen. Lack of coaptation in systole. Marked eccentric mitral regurgitation. 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; 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 140bpm.

2-Dimensional Measurements

Measurement	Value
Ao diam (cm)	0.8
LA diam (cm)	2.6
LA:Ao (Swe)	2.9
IVS thickness (cm)	0.5
LVID diastole (cm)	2.8
PW thickness (cm)	0.5
LVID systole (cm)	0.8
FS (%)	72

Doppler Measurements

Measurement	Value
PV Vmax (m/s)	0.65
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	4.6
TR Vmax (m/s)	2.5
TR PG (mmHg)	25

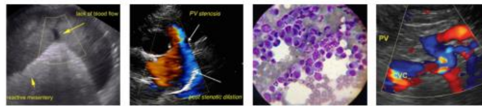
INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease with continued evidence of significant progression. Marked MR and progressive LA/LV dilation are seen. This is highly concerning for imminent decompensation even without reported clinical issues, and addition of low dose Lasix and Spironolactone are recommended.

Continued assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (late B2/C). Unfortunately, the patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

RECOMMENDATIONS

- Continue Pimobendan and ACE-I as prescribed.



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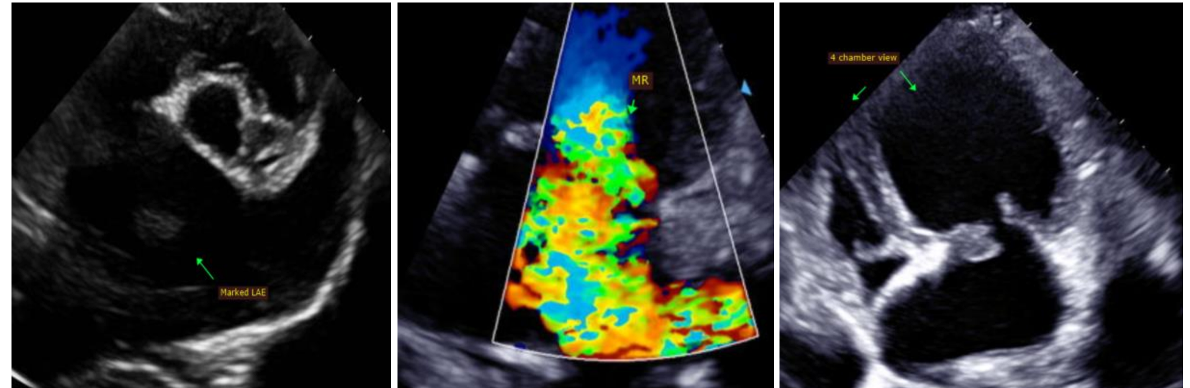
- Institute Lasix 1-2mg/kg PO q12h.
- Institute Spironolactone 1-2mg/kg PO q12h.
- Close monitoring for development of associated clinical signs (development of a cough, labored breathing, exercise intolerance or worsening collapse episodes) is recommended. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Mild activity restriction is advised.
- Elective anesthesia is not advised, as there is high risk for complication. If necessary, cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso or sevoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 cage. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Moderate IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

PLAN

- A renal panel and BP are recommended in 1-2 weeks, then every 3-4 months lifelong.
- 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)