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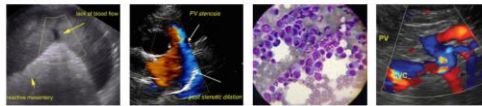

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Melady Velasquez

SPECIES
Canine

BREED
Chihuahua

SEX
Female Spayed

AGE
16 years

WEIGHT
11lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Compassion Veterinary Clinic

REFERRING VET
Dr. Patil

INVOICE
31601

DATE
6/28/23

PRESENTING CLINICAL SIGNS

History: History of seizures, treated with Zomisamide 25mg BID. History cardiac murmur (grade IV/VI). Radiographs: Cardiomegaly. No clinical signs - doing well. Echo prior to anesthesia for mammary mass removal. Current additional medications: Furosemide 12mg SID, Pimobendan 1.25mg BID. BP: 202, 202, 210mmHg.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is borderline increased with hyperdynamic function. LV wall thicknesses are normal. Mild LV hypertrophy.
Left atrium: The left atrium is moderately dilated.
Mitral valve: The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. Moderate 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. 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 no 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 150bpm.

2-Dimensional Measurements

Measurement	Value
Ao diam (cm)	1.2
LA diam (cm)	2.1
LA:Ao (Swe)	1.75
IVS thickness (cm)	0.7
LVID diastole (cm)	2.1
PW thickness (cm)	0.8
LVID systole (cm)	0.5
FS (%)	70

Doppler Measurements

Measurement	Value
PV Vmax (m/s)	1.2
AoV Vmax (m/s)	1.4
MR Vmax (m/s)	6.4
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing moderate mitral 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. No additional issues are identified.

Systemic hypertension is mentioned in the history which is supported by the findings of a small aortic leak and mild LV hypertrophy. Pseudohypertrophy should be ruled out through **baseline lab work.** Based upon these findings in addition to the reported blood pressure, recommend institute Amlodipine to effect. Target BP <160mmHg. Screening for underlying causes of high blood pressure is highly recommended (renal disease, adrenal tumor, etc.). Screening for proteinuria is recommended as an ACEI may also be needed.

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Given LA dilation, Pimobendan is recommended as below. **No indication for Lasix prior to CHF and this can be safely discontinued.** Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).

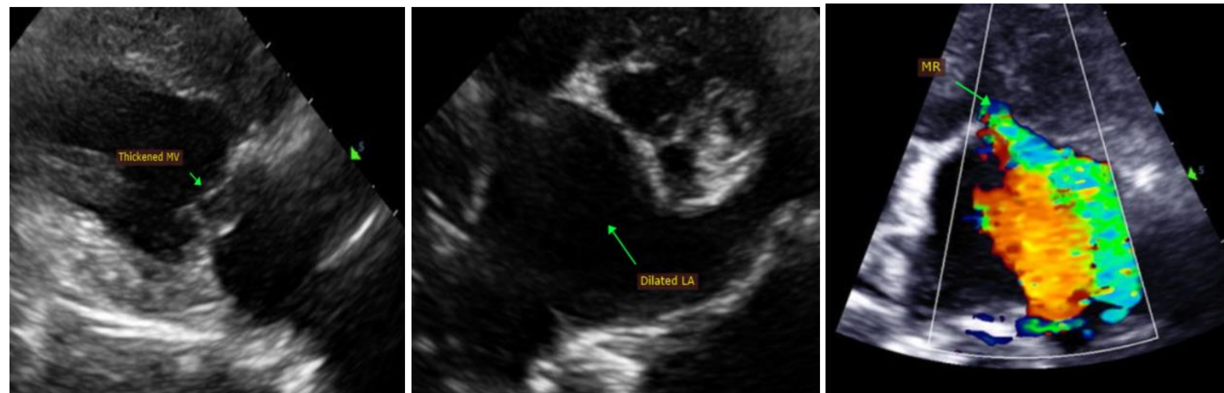
RECOMMENDATIONS

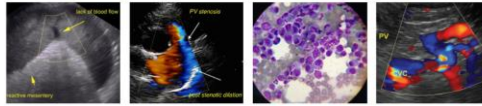
- Institute heart muscle support Pimobendan 0.3mg/kg PO q12h.
- Discontinue Lasix.
- Baseline labs.
- Institute Amlodipine to effect as discussed and reassess BP in 1-2 weeks; target <160mmHg.
- Screen for underlying causes for SHT, including proteinuria.
- Consultation with an IM Specialist may be beneficial.
- 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)