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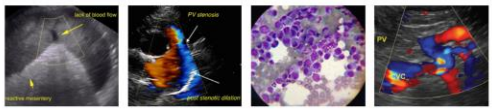

SonoPath
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PATIENT
Duke Watson

SPECIES
Canine

BREED
Mix

SEX
Male Neutered

AGE
7.5 years

WEIGHT
15.8lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
MVA

REFERRING VET
Dr. Art

INVOICE
28328

DATE
1/13/23

PRESENTING CLINICAL SIGNS

History: History of progressive heart murmur, now grade IIIIV/VI. History of seizures first noted 8/2021. Intermittent cough. Chest radiographs WNL. Current medications: 1) Zonisamide 50mg BID. 2) Guaifenisin DM tabs (100 + 10mg). 1/2 tab every 6-8 hrs as needed.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: Significant LV dilation with increased sphericity and hyperdynamic myocardial function. LV wall thicknesses are normal.
Left atrium: The left atrium and auricle are markedly dilated with a horizontal component not reflected in LA:Ao.
Mitral valve: Diffuse thickening of mitral valve leaflets with prolapse into the left atrial lumen. Flail anterior leaflet. Severe eccentric mitral regurgitation with a normal velocity.
Aortic valve/Aorta: The aortic valve is thickened with normal mobility. Mildly elevated aortic outflow velocity; laminar flow. No AI.
Right ventricle: Mild RV dilation.
Right atrium: Mild right atrial dilation.
Tricuspid valve: The tricuspid valve appears thickened with mild tricuspid regurgitation. Normal velocity.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal with normal pulmonic outflow velocity. No pulmonic insufficiency.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 170bpm.

2-Dimensional Measurements

Ao diam (cm)	1.6
LA diam (cm)	3.2
LA:Ao (Swe)	2.0
IVS thickness (cm)	0.8
LVID diastole (cm)	3.3
PW thickness (cm)	0.8
LVID systole (cm)	1.7
FS (%)	47

Doppler Measurements

PV Vmax (m/s)	0.80
AoV Vmax (m/s)	1.2
MR Vmax (m/s)	5.2
TR Vmax (m/s)	2.6
TR PG (mmHg)	26

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing severe mitral and mild tricuspid regurgitation. Marked left atrial enlargement indicates the risk for spontaneous congestive heart failure is elevated. A fail leaflet is noted, which may further raise this risk. Mild TR is also noted, without significant pulmonary hypertension. No additional issues are identified.

Given a reported cough and severity of disease seen here, there is concern for early congestive heart failure. Even without reported CHF in films, recommend institution of full lifelong cardiac support as below including low dose Lasix therapy. Hydrocodone can be used if needed for quality of life if a mechanical cough persists despite normal sleeping breathing rates. Close monitoring of breathing rates is recommended to determine a mechanical cough from recurrent pulmonary edema.

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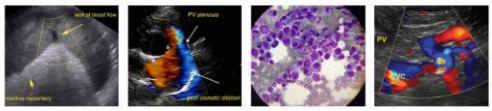

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The average survival of canine patients once pulmonary edema is diagnosed s 8-9 months on medications; however, they generally are able to maintain a good quality of life for that period. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future. Monitoring of renal values is recommended lifelong.

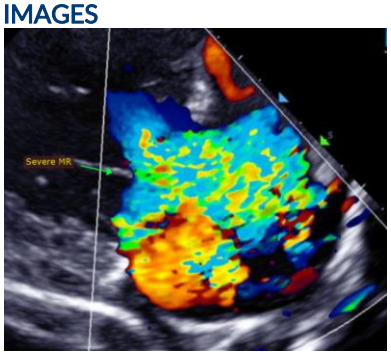
RECOMMENDATIONS

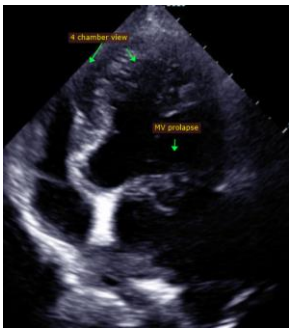
- Institute Spironolactone, 1-2mg/kg PO q12h.
- Institute Furosemide to 1mg/kg PO q12h.
- Administer Pimobendan 0.3mg/kg PO q12h.
- If needed, institute Hydrocodone if needed, 0.2 – 0.4 mg/kg PO up to q4-6 hours PRN for cough (available in 5/1.5mg tablets or 5mg/5ml solution).
- Elective anesthesia is not advised.
- Monitor for development of a cough, collapse episodes, significant lethargy in the future. Monitoring of sleeping breathing rates is recommended best way to screen for CHF in the future.

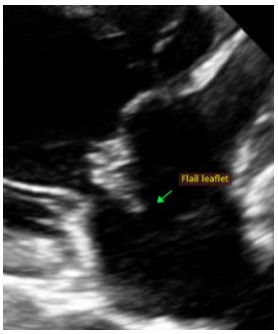
PLAN

- Monitor renal values and BP in 1-2 weeks and then every 3-4 months on medications. If doing well and BP>130mmHg, institute Benazepril 0.5mg/kg PO q12h.
- A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise in the interim.

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)