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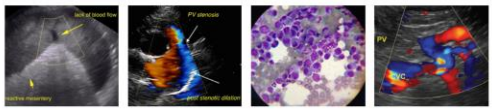

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT
Zeus Heffron

SPECIES
Canine

BREED
Chihuahua

SEX
Male Neutered

AGE
13 years

WEIGHT
6.7lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Norfolk County Veterinary Service

REFERRING VET
Dr. Leoni

INVOICE
25468

DATE
7/21/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. History chronic valvular heart disease – Stage B1; history pulmonary hypertension – open for underlying disease diagnosed on echocardiogram 1/17/19 (Mandi Kleman, DVM, DACVIM-Cardiology). Current presentation: Doing well. Owner reports occasional appearance of blueish tongue (recent pulse ox = 98%); otherwise, good appetite and normal energy level for him. Echocardiogram prior to anesthesia for dental prophy. On exam: grade IV/VI systolic murmur. BP: 115, 118, 121 mmHg.
-Pertinent previous echo findings (1/17/19 Mandi Kleman, DVM, DACVIM-Cardiology): LA 1.2 cm; LA:Ao 1.14; LV 2.10 cm; normal LA size with mild elongation of LAA; mild MR; mils TR (~ 4 m/s).

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.
Left atrium: The left atrium is mildly dilated.
Mitral valve: The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. Mild 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. 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 thickened with mild to moderate tricuspid regurgitation. Velocity consistent with mild to moderate pulmonary hypertension.
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 100bpm.

2-Dimensional Measurements

Ao diam (cm)	1.0
LA diam (cm)	1.4
LA:Ao (Swe)	1.4
IVS thickness (cm)	0.5
LVID diastole (cm)	1.9
PW thickness (cm)	0.5
LVID systole (cm)	1.2
FS (%)	33

Doppler Measurements

PV Vmax (m/s)	0.5
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	5.4
TR Vmax (m/s)	3.5
TR PG (mmHg)	50

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease persists with evidence of stability. Mild mitral regurgitation and mild left atrial enlargement is slightly progressed compared to previous; however, this is not surprising given the time frame. Pulmonary pressures appear stable, and no additional issues are identified.

Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1). Monitor for signs of progressive PAH, such as exertional syncope or collapse.

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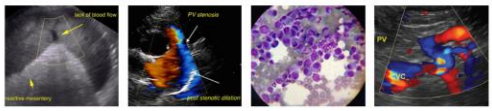

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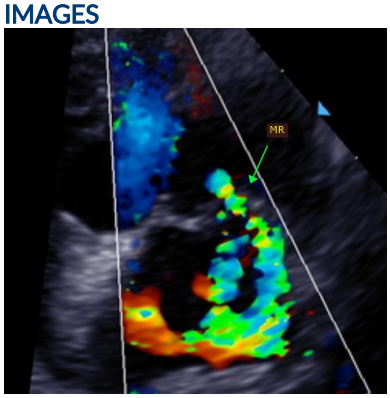
RECOMMENDATIONS

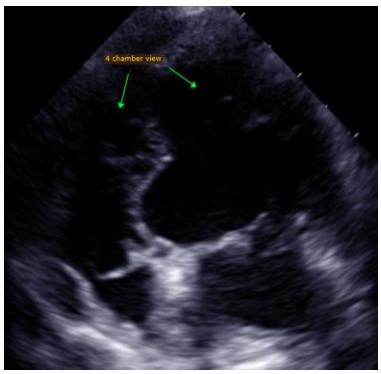
- No cardiac medications are clearly indicated.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane 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





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)
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