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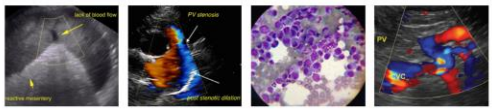

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT
Ruby Love Stuckey

SPECIES
Canine

BREED
Redbone Coonhound

SEX
Female Intact

AGE
4 years

WEIGHT
76.1lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Wignall Animal Hospital

REFERRING VET
Dr. Cramb

INVOICE
25316

DATE
7/14/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. History valvular pulmonary stenosis. S/P balloon valvuloplasty. Currently, doing well with no clinical issues. Grade lll/Vl systolic murmur; BP: 128, 132mmHg. Initial echocardiogram 9/5/18: pulmonary valve gradient: 156mmHg (fused leaflets with normal PA annulus (Type A); RVE; severe RVH. Balloon valvuloplasty in Oct 2018: pre 160mmHg; post 50mmHg. Follow up study in December 2018 showed an increase in the PV gradient to 110mmHg. In July 2020, the gradient had increased to 122 mmHg. Recommendation to consider a second procedure with more aggressive balloon catheters (not done). Current medication: Atenolol 25mg PO BID *Sedated with gabapentin/trazodone

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is normal with adequate function. LV wall thicknesses are normal.
Left atrium: The left atrium is normal.
Mitral valve: The mitral valve appears normal with no MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.
Right ventricle: The RV is not significantly dilated; however, there is severe hypertrophy present. Septal flattening noted.
Right atrium: Mild RA dilation.
Tricuspid valve: The tricuspid valve appears mildly thickened. No obvious stenosis. Mild tricuspid regurgitation. Elevated velocity.
Pulmonic valve/Pulmonary artery: Pulmonic outflow velocities are elevated at the level of the valve. The max velocity is consistent with a severe stenosis (PG 88mmHg). The pulmonic valve appears thickened and tethered. Moderate pulmonic insufficiency. Mild post-stenotic dilation of the MPA and branches.
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

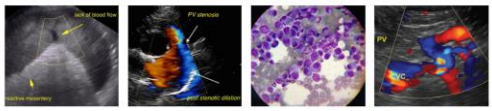
Ao diam (cm)	2.7
LA diam (cm)	3.3
LA:Ao (Swe)	1.2
IVS thickness (cm)	1.9
LVID diastole (cm)	3.5
PW thickness (cm)	1.2
LVID systole (cm)	2.0
FS (%)	43

Doppler Measurements

PV Vmax (m/s)	4.7
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	NA
TR Vmax (m/s)	4.7
TR PG (mmHg)	90

INTERPRETATION OF THE FINDINGS

Valvular pulmonic stenosis persists, with relative stability seen in this study. Significant RV hypertrophy is consistent with the previous report; however, only mild right atrial enlargement is noted. Additionally, the pressure gradient across the valve is decreased compared to the 2018 study. This may reflect inter-observer or HR variability; however, some degree of early RV failure is also possible. Monitoring is adised. The left heart remains normal, and no additional issues are identified. Overall, I would consider this relatively stable disease, particularly given an asymptomatic patient.



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Given what is seen here, it is reasonable to continue Atenolol lifelong. As was mentioned previously, a second procedure would be reasonable in this case. Particularly should right-sided CHF develop, or significant clinical signs arise. Prognosis is guarded going forward with risk for right-sided CHF, syncope and/or sudden death lifelong.

Monitor for development of associated clinical signs (collapse, abdominal distention, cough, labored breathing). Mild exercise restriction is advised. Omega fatty acid supplementation may have some long-term benefit, given these cases are predisposed to development of arrhythmias going forward.

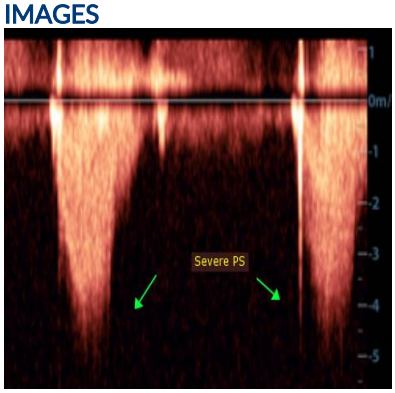
RECOMMENDATIONS

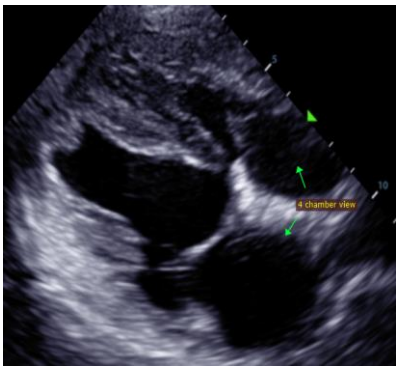
- Continue atenolol as prescribed.
- Consider consultation for a 2nd procedure, particularly should clinical signs or right-sided CHF develop.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is mild to moderate at this time. Avoid heart rate stimulating drugs such as atropine or glycopyrrolate unless absolutely necessary. Avoid vasodilators such as acepromazine. Mild IV fluid restriction is advised. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 if possible.
- Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary.
- Mild activity restriction is advised.

PLAN

- A recheck echocardiogram is recommended annually, sooner if clinical signs arise.

IMAGES





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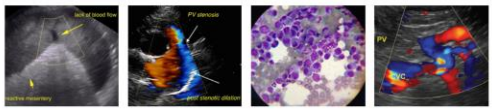

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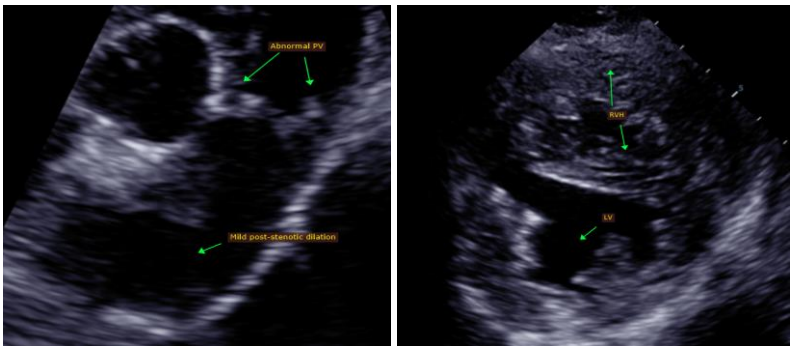

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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