IMAGING PERFORMED BY

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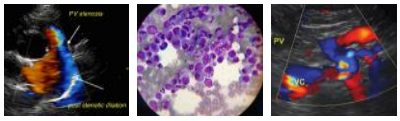

SonoPath
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PATIENT
Shiloh Klimovitz

SPECIES
Canine

BREED
Beagle

SEX
Female Spayed

AGE
1.8.12

WEIGHT
38lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME
Stay Pet Veterinary

REFERRING VET
Dr. Klimovitz

INVOICE
31500

DATE
6.22.23

PRESENTING CLINICAL SIGNS

History: Recheck echo. Doing well overall. Grade 2/6 heart murmur.
-Current medications: None.
-CXR report: No cardiomegaly. Rounded heart base.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results (9/2021 MML): Mild MR, mild LAE, trace TR. LA: 2.4, LV: 3.6. Mild PS: 3.0m/s.
-STAT: Not requested
-Imaging performed by: Stephanie Warga RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mildly thickened mitral valve leaflets with no obvious prolapse into the left atrial lumen. Mild eccentric mitral regurgitation. Mild left atrial enlargement. Normal LV diameter with borderline myocardial function. The LV wall thickness is normal. The tricuspid valve appears normal in form and function. Trace TR. Elevated velocity due to PS. No right atrial dilation. Mild right heart prominence with no hypertrophy. Mild elevation of pulmonic outflow velocities at the level of the valve. The PV appears thickened and stenotic, with mild post-stenotic dilatation of the branch PA's. Mild pulmonic insufficiency. The aortic valve appears to have normal morphology and mobility. Normal LVOT velocity. No pericardial or pleural effusion noted. No obvious cardiac masses.

CARDIAC CHART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	5.2	3.6	NM	1.5	28	55	NM

CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	93	1.1	3.2	17.2	2.6	3.4	2.4
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
**Note: All measurements based upon multi-modal images and methods. An average value is reported.*				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease persists with overall stability. Compared to the prior study, PS remains mild without significant right heart enlargement. Mild MR and trace TR are unchanged with mild LA enlargement. This would suggest the risk for complication remains low. No additional issues are identified.

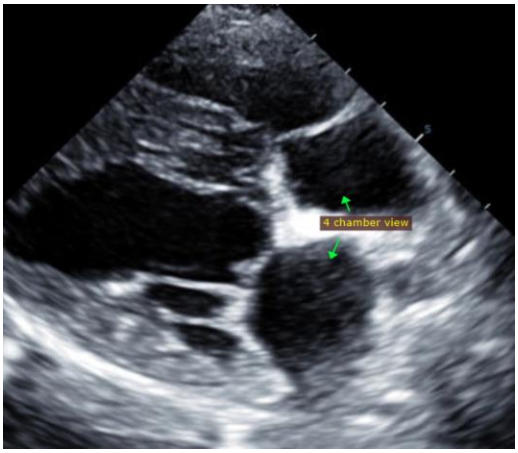
Given these findings, no cardiac medications are clearly indicated. Prognosis is highly variable at this stage (B1).

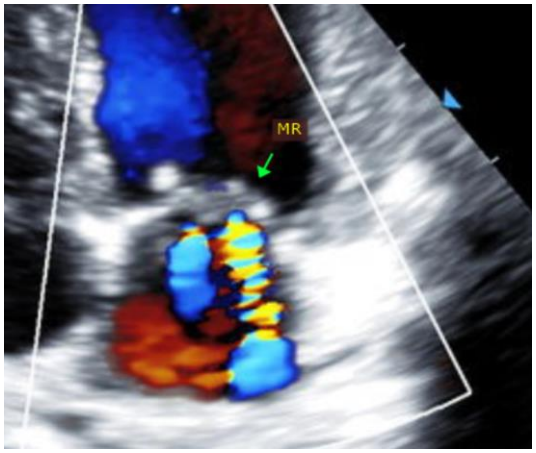
Anesthetic risk is considered mildly elevated. Avoid heart rate stimulating drugs such as atropine or glycopyrrolate. Avoid excessive vasodilation/hypotension. Pre-oxygenate for 5-10 minutes prior to induction. A reasonable protocol would be as follows: premedicate with opioid/benzodiazepine, propofol or alfaxalone induction, isoflurane maintenance. Monitor ECG, BP as is standard. Monitor for hypoxia in recovery; utilize O2 chamber if needed. Mild IV fluid restriction is advised.

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

Recommend recheck echocardiogram in 6-12 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