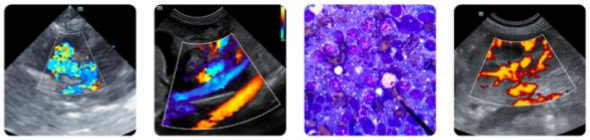


PATIENT

Thor Mackie

SPECIES

Canine

BREED

Cavalier king Charles Spaniel/Bichon Frise

SEX

Neutered Male

AGE

7 Years

WEIGHT

5.3 kg

INTERPRETED BY

James Wood, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Iacovides

HOSPITAL NAME

Tuxedo AH

REFERRING VET

Dr. Pura

INVOICE

37264

DATE

6/1/26

PRESENTING CLINICAL SIGNS

History: Diagnosed with stage B1 MMVD in 2024 at another vet clinic. I was not able to see the echo report itself but only DVMs notes about the report. Murmur has progressed over time and is now a high grade. Doing well at home.

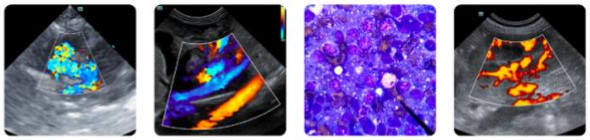
Abnormal PE/Chem/CBC/UA Results: Grade4/5-6 systolic murmur Echo in 2024 - Diagnosed with stage B1 MMVD.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	LA long axis	LAmaxN	Ao long axis	LA/AO (Heart Base; Swe, short axis)	LA/AO long axis	LVIDd	LVIDdN
NORMAL PARAMETER		<1.57		<1.6	<2.5		<1.7
PATIENT	2.92	1.75	0.82	1.82	3.6	3.21	1.9
CARDIAC PARAMETERS	**Body Weight (kg)**	**AV VMAX (m/s)**	**PV MAX (m/s)**	**MR VMAX (m/s)**	**TR VMAX (m/s)**	**FS (%)**	**LVIDsN**
NORMAL PARAMETER		0.7-1.7	0.7-1.6			22 - 49%	<0.9
PATIENT	5.3	1.38	0.51	5.6	--	44.9	0.9
CARDIAC PARAMETERS	**HR (bpm)**	**MV E (m/s)**	**MV A (m/s)**	**MV E/A (m/s)**	**EF (%)**	**IVSdN**	**LVFWdN**
NORMAL PARAMETER						<0.6	<0.6
PATIENT	100	1.06	0.6	1.77	--	0.32	0.29

Cardiac Presentation

The mitral valve leaflets are mildly thickened with moderate eccentric and posteriorly directed mitral valve insufficiency. There is mild anterior leaflet prolapse. The left atrium is mildly to moderately dilated. The left ventricle is moderately dilated. Normal global left ventricular systolic function. The left ventricular diastolic function is normal. There is normal right atrial size. The tricuspid valve is competent. There is no evidence of clinically relevant pulmonary hypertension based on the lack of changes to the right heart and proximal pulmonary arteries. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonary valves have normal appearance and motion



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and the corresponding outflow velocities are within normal limits. There is trace to mild pulmonary valve insufficiency and mild aortic valve insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- MMVD- ACVIM stage B2
- Aortic valve insufficiency
- Pulmonary valve insufficiency – trace

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram showed evidence of myxomatous mitral valve disease. Based on this echocardiogram, there is significant enough chamber enlargement that the patient would benefit from starting pimobendan (if not already started) at 0.25-0.3mg/kg PO q12hr to slow the progression of this disease and delay the onset of CHF. CHF at this time is unlikely based on the reported history and examination, however baseline chest X-rays (within the last ~6 months- 1 year) are reasonable to fully rule out CHF and obtain a baseline of the patient's pulmonary parenchyma for comparison should clinical signs develop in the future. A blood pressure is also recommended. If the systolic BP >160mmHg while calm, an ACEi at 0.3-0.5 mg/kg PO q12 is recommended provided normal renal function. If so, recheck BP and renal panel with electrolytes in 1-2 weeks. Amlodipine should be considered if persistently hypertensive. If not hypertensive, the benefit of an ACEi or other RAAS blockade is not well established in this population of patients, and is typically reserved for once CHF develops, or if the left atrial and ventricular dimensions are severely increased. Monitoring of renal function is necessary when on these medications. Recheck in 6 months or sooner if concerns arise. At that time, a recheck echocardiogram to monitor for progression +/- thoracic radiographs (i.e. recommended if there is a new cough or increase in the RR).

The aortic valve efficiency is likely also due to mild degenerative valve disease. However, systemic hypertension may also be contributing at present.

Monitoring

It is very important to catch any clinical signs concerning for emerging CHF as early as possible. The client should be closely monitoring and ideally tracking the sleeping respiratory rate. The sleeping RR should be between 10-30 breaths per minute or less (ideally in the teens or low 20s). **If the resting RR is trending upward**, consistently>35/min while resting/sleeping AND/OR there is a new or progressive cough, the patient should be seen urgent for evaluation to determine if CHF is developing. *RECHECK ASAP for thoracic radiographs if there is a new cough or increase in RR to detect early CHF and avoid ER presentation**

Sodium Restriction

Mild sodium restriction may be beneficial in managing this stage of cardiac disease. High-salt treats or diets should be avoided. If interested, further information on moderate sodium restricted diets for dogs with advanced cardiac disease can be found at: https://heartsmart.vet.tufts.edu/nutrition/.

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

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

James Wood, DVM, DACVIM (Cardiology)

info@SonoPath.com