

PATIENT PRESENTING CLINICAL SIGNS

Frankie Harnish

- Grade 5/6 heart murmur

SPECIES

Canine

- 7/9/25: Degenerative Valve Disease ACVIM stage B-2 (mitral) + mild deg. of tricuspid valve

BREED

Maltese X

- This is a follow up ultrasound. Doing well at home as per owner. No changes in clinical signs.

SEX

Neutered Male

- Current Medications: Metacam oral solution- 9kg dose orally ONCE daily as needed, Furosemide 20mg- 1/2 tab PO SID, Pimobendan 2.5mg- 1 capsule PO BID.

AGE

11 Years

- Abnormal PE/Chem/CBC/UA Results: Values No lab work done since last ultrasound Radiographic Findings No radiographs done since last ultrasound Primary Question to Be Answered in This Exam Disease progression? Do we need to change medication protocol? Previous echo attached and ECg today.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

WEIGHT

9.0 kg

INTERPRETED BY

Sara Brethel, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Main Street AH

REFERRING VET

Dr. Morris

INVOICE

36467

DATE

4/2/26

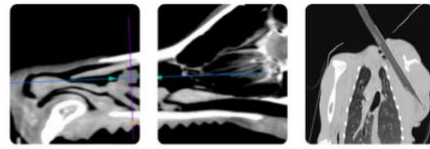
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	6.01	~3.0	2.28	2.25	52.99	--	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	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				
PATIENT	131	1.56	1.25	9.0	3.57	3.34	1.57

ECG Interpretation

Sinus rhythm

Cardiac Presentation

The mitral valve leaflets are moderately thickened with moderate mitral regurgitation posteriorly directed. There is moderate prolapse of the mitral valve leaflets. The left atrial size is severely increased. Left ventricular measurements are within normal limits but meet EPIC criteria, and left ventricular systolic function is preserved in the face of mitral regurgitation. There is normal right atrial



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size with mild tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension based upon tricuspid regurgitant velocities. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology and the corresponding outflow velocities are within normal limits. There is no evidence of pulmonic or aortic 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

- Degenerative valve disease, ACVIM, stage B-2
- Mild degeneration of the tricuspid valve without significant pulmonary hypertension
- Sinus rhythm

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

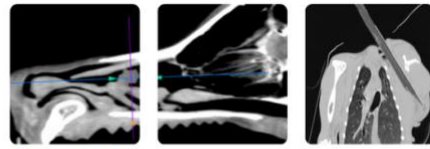
The patient has degenerative valve disease. There has not been significant progression since starting cardiac therapies. The measurements are roughly similar when compared to the previous evaluation performed. I recommend continuing pimobendan therapy. It is unknown why the patient is currently receiving diuretic therapy. In the absence of clinical signs of congestive heart failure, I would recommend stopping furosemide. If there's been a previous episode of an elevated breathing rate or respiratory distress and the patient is controlled at this dose, then it can be continued with blood work monitoring at least every 4-6 months while on that therapy. If the patient remains on furosemide, ideally the patient would be off of NSAID therapy as well, as this promotes diuretic resistance and RAS suppression with ACE inhibitors and spironolactone would be initiated. If there has not been a previous episode of respiratory distress though, then the furosemide should be discontinued, as previously mentioned, and RAS suppression does not need to be initiated at this time. The left atrial size does remain severely increased, however, it is not expected for this to reduce in size. Serial monitoring for any signs of progression and signs of congestive heart failure is recommended.

The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

As long as the patient remains asymptomatic and is clinically doing well, another recheck should be done in another 9 - 12 months, sooner if cardiovascular clinical signs or clinical signs of heart failure are developing.

Recommended ensuring the patient is normotensive.

Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if



PATIENT

indicated.

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Elective anesthetic procedures are ideally avoided due to the severity of the left atrial size.

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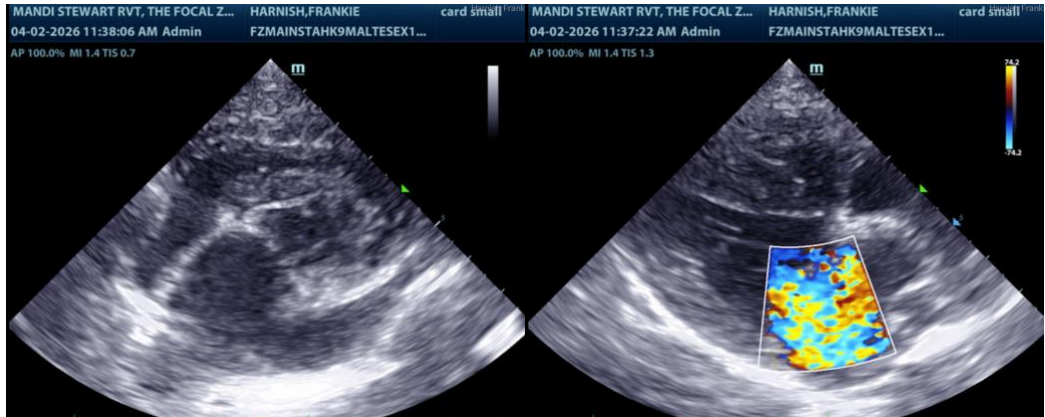
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Sara Brethel DVM, DACVIM (Cardiology)

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