



PATIENT

Cooper Arturi

SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

13yr

WEIGHT

Pending

INTERPRETED BY

R. McKenzie Daniel,
 DVM, DABVP
 (Canine and Feline)

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

Chester AH

REFERRING VET

Dr. Migliaccio

INVOICE
 24020

DATE
 02/27/2026

PRESENTING CLINICAL SIGNS

- Dental prophy
- Grade 3-4/6 systolic heart murmur
- No cardiac signs but has weak hind end so exercise intolerance is difficult to assess.
- Last echo 12/21/21 MMVD stage B1
- No current meds

Abnormal PE/Chem/CBC/UA Results: N/A

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	5.0		--	1.8	40	70	0.3
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	130	1.4	1.1	Pending	3.5	3.3	--

Cardiac Presentation

The echocardiogram in this patient demonstrated mild increased left atrial size based on 2 different LA measurement methods. Mild interatrial septal deviation., The cranial and caudal mitral valve leaflets presented thickening consistent with endocardiosis with mild valvular prolapse. Moderate eccentric MR. The left ventricle presented mild increased dimension. The myocardium presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. Contractility of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The left ventricular outflow tract demonstrated normal laminar flow and subjective structural integrity. The right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated adequate linear morphology. The



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right ventricle was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible pericardial or free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible.

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ULTRASONOGRAPHIC FINDINGS

Primary

- Chronic mitral valve disease with valve prolapse (ACVIM B2)

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is elevated, yet overall the heart appears stable. No other clinical issues such as LV systolic dysfunction or clinical pulmonary hypertension. Pimobendan 0.3 mg/kg BID is recommended. No overt indication for additional medication. Prognosis is considered variable and sonographic monitoring is recommended. Recheck echo cardiogram is suggested in 6 months, sooner if clinical signs arise.

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Anesthetic risk is mild to moderate yet likely mildly reduced once on Pimobendan for 3-5 days. If required, the following protocol is suggested with clinical monitoring and judicious IV fluid administration.

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Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.

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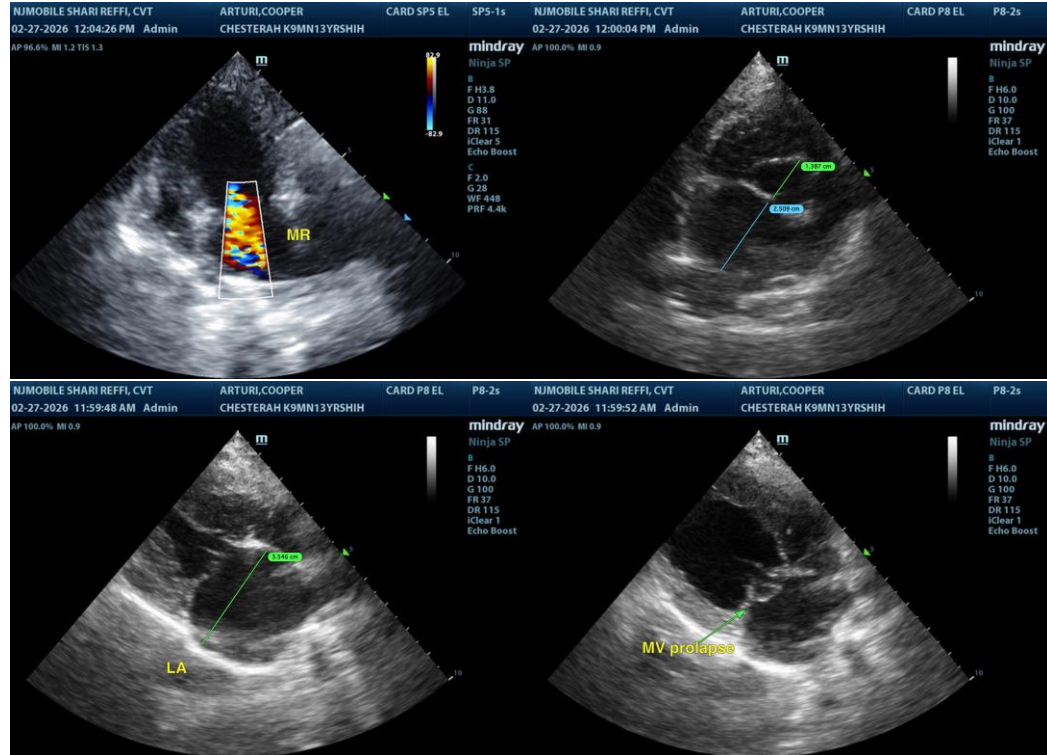
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

IMAGING PERFORMED BY

Shari Reffi CVT

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com

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