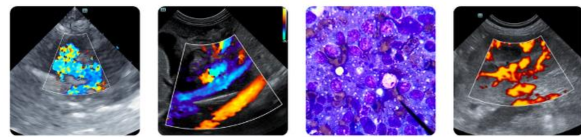


SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.SonoPath.com
info@sonopath.com 800.838.4268

PATIENT

Dino Meier

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Male (neutered)

AGE

10 years

WEIGHT

Not Provided

INTERPRETED BY

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

IMAGING PERFORMED BY

Meghan Morse, LVT, CVT

HOSPITAL NAME

All Animal VS

REFERRING VET

Dr. Acworth

INVOICE

10656

DATE

2/25/26

PRESENTING CLINICAL SIGNS

History:

- Grade III/V HM
- ECG in 2023 showed early heart enlargement

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

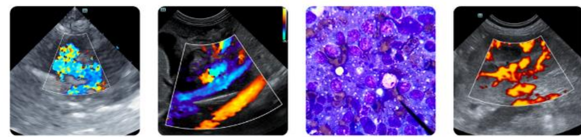
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.2	-	-	1.6	51	84	0.2
CANINE CARDIAC PARAMETERS	**HR (BPM)**	**AV VMAX (m/s)**	**PV MAX (m/s)**	**BODY WEIGHT**	**LAD** 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	NM	1.8	1.2	NP	2.9	2.9	-

Cardiac Presentation

The echocardiogram in this patient demonstrated borderline increased **left atrial** size based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented mild thickening consistent with mild endocardiosis. Doppler revealed measurable moderate eccentric MR measuring 5.2 m/s. The **left ventricle** presented borderline increased dimension with linear contour and was not dilated nor restricted. 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 **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.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM mild B2)



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

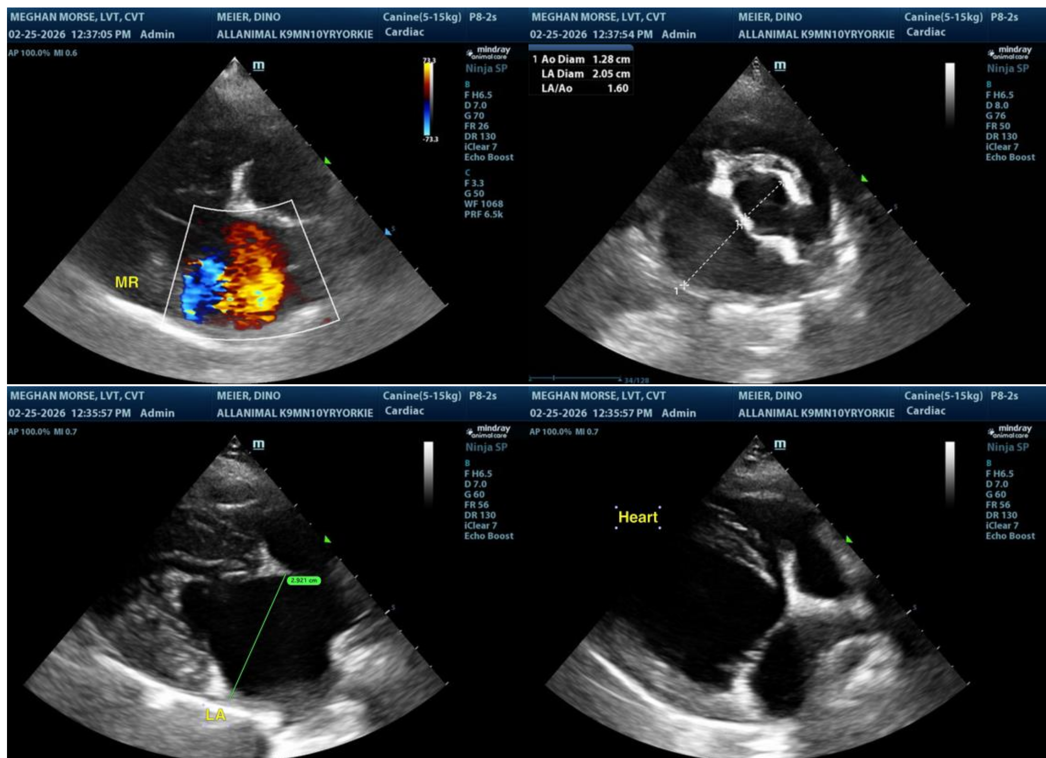
The borderline to mild increased LA / LV dimension indicates that current and future risk of complications secondary to MR is mildly elevated, yet overall the heart is stable. This patient is considered borderline for the use of Pimobendan, yet given evidence of early LA / LV enlargement, Pimobendan 0.3 mg/kg PO BID is warranted. There is no indication for additional cardiac medications. Prognosis is variable, and sonographic monitoring is advised. Recheck echocardiogram is suggested in 6 months, sooner if clinically indicated.

Anesthetic risk is considered mild: due to mild left atrial enlargement as noted on images presented, along with heart murmur.

1. However, judicious fluid administration is advised with careful RR/RE monitoring to screen for fluid overload.

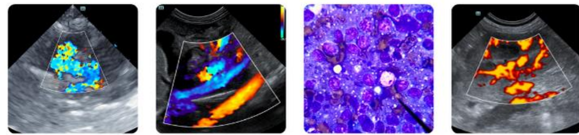
Monitoring of blood pressure, SpO2, CO2, and auscultation of heart and lungs during anesthesia should be done during every procedure.

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.



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.

New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



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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.

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info@sonopath.com