


PATIENT PRESENTING CLINICAL SIGNS

Zeus Paniagua History: Pre-anesthetic echo for dentistry. Grade III/VI L apical systolic murmur. Non clinical. No current meds.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART
BREED

Mix

SEX

Neutered male

AGE

13 years 11 months

WEIGHT

18.5 pounds

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	<1.3	28-40	40-100	<0.6
PATIENT	5.2	NM	1.34	1.3	39	71.5	0.25
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				
PATIENT	168	1.34	0.9		3.5	2.7	NM

INTERPRETED BY

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

IMAGING PERFORMED BY
Shari Reffi CVT

HOSPITAL NAME

VCA Blirstown Animal
Hospital

REFERRING VET

Dr. Lovell

INVOICE

10434ag

DATE

04/20/2022

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis with minor prolapse of the septal leaflet. Doppler indicated measurable eccentric insufficiency. The left ventricle presented thicknesses 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 with mild aortic valve insufficiency present on Doppler. 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 infiltrative disease was visible. The cranial mediastinum and pericardial regions were free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B1) with minor septal MV leaflet prolapse.
- Minor AV insufficiency.



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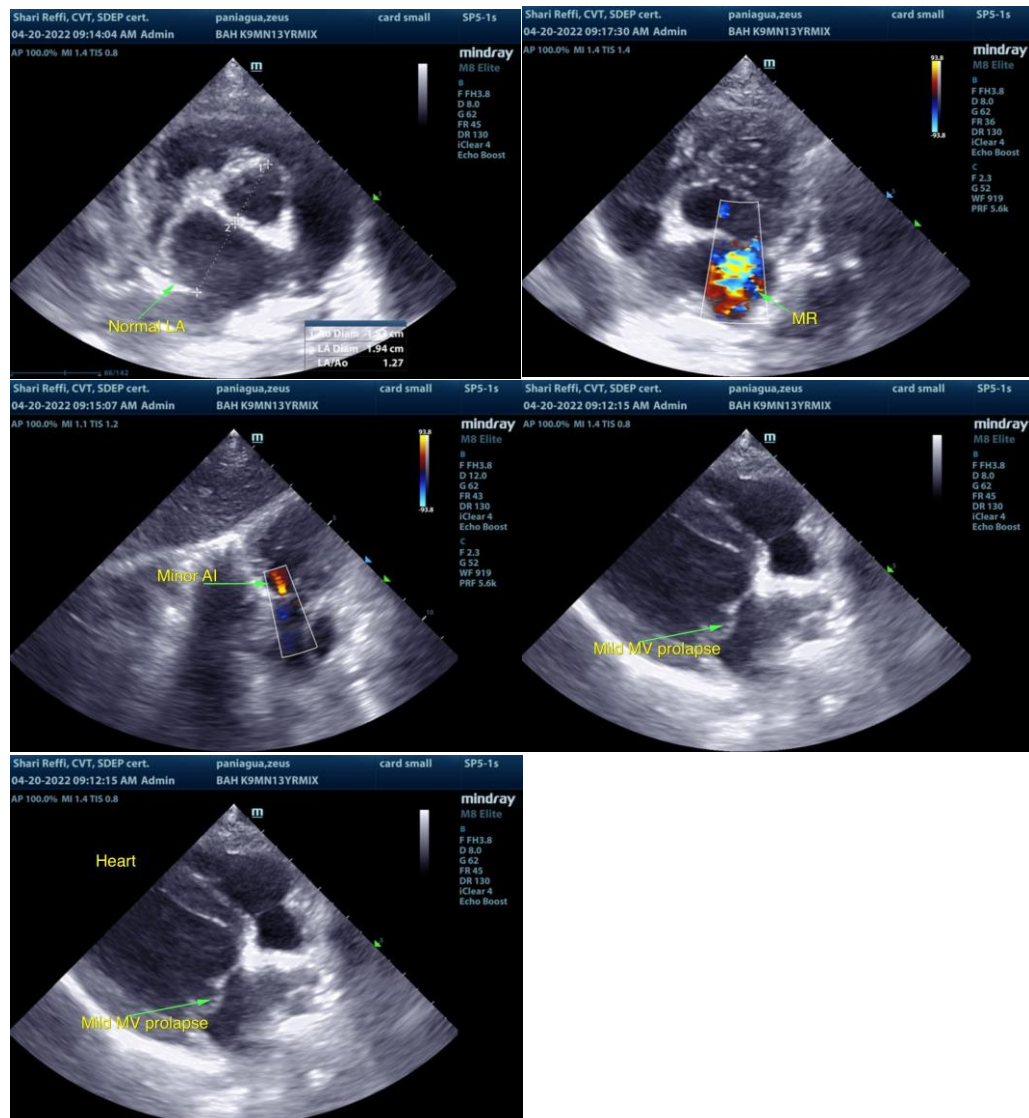
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is secondary to chronic degenerative valvular changes with mild septal leaflet prolapse and secondary eccentric mitral valve insufficiency. The lack of LA enlargement indicates that the risk of current and future complication is relatively low, however prognosis at this stage is highly variable. In a nonclinical patient without chamber enlargement, cardiac medications are not specifically indicated. Serial sonographic monitoring is required for further prognosis. Recheck echocardiogram suggested in 6 months or sooner if clinical signs arise. Screening BP recommended to assess for evidence of hypertension given the mild AV insufficiency. Assuming normal BP, no anesthetic contraindications at this time. 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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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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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