



PATIENT

Charlie Nixon

SPECIES

Canine

BREED

Japanese Chin

SEX

MN

AGE

9 years

WEIGHT

12 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Freedon AH

REFERRING VET

Dr. Grau

INVOICE

15323

DATE

11/2/22

PRESENTING CLINICAL SIGNS

Pre-anesthetic evaluation for dental. Grade III-IV/VI heart murmur. Chest rad-No sig. cardiomegaly, no congestion. Elevated BNP. No current meds.

Abnormal PE/Chem/CBC/UA Results: BNP 1186, RBC 5.32

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	<1.6	28-40	40-100	<0.6
PATIENT	5.6	2.0		1.48	38.2	70	0.37
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	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.0	0.7		3.2	3.4	

Cardiac Presentation

The echocardiogram in this patient demonstrated minor enlarged **left atrial** size based on 3 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented mild to moderate thickening consistent with mild to moderate endocardiosis. No evidence of valvular prolapse. Doppler indicated measurable mild to moderate 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated mild thickening with mild TR on Doppler. 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.



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ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B1-emerging B2)
- TR - no evidence of clinical pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is secondary to chronic degenerative valvular changes with primary eccentric mitral valve and mild tricuspid valve insufficiency. A lack of significant left atrium enlargement indicates that the current and future risk going forward of complications secondary to mitral valve insufficiency is relatively low, however, prognosis at this stage is highly variable.

In a nonclinical patient without evidence of significant or overt chamber enlargement, cardiac medications are not obviously indicated. Serial sonographic monitoring is required for further prognosis. No overt anesthetic contraindications at this stage, yet judicious IV fluid use under anesthesia is advised. Recheck echocardiogram is recommended in 6 months, given the highly variably prognosis, sooner if clinical signs arise. The following anesthetic protocol is suggested.

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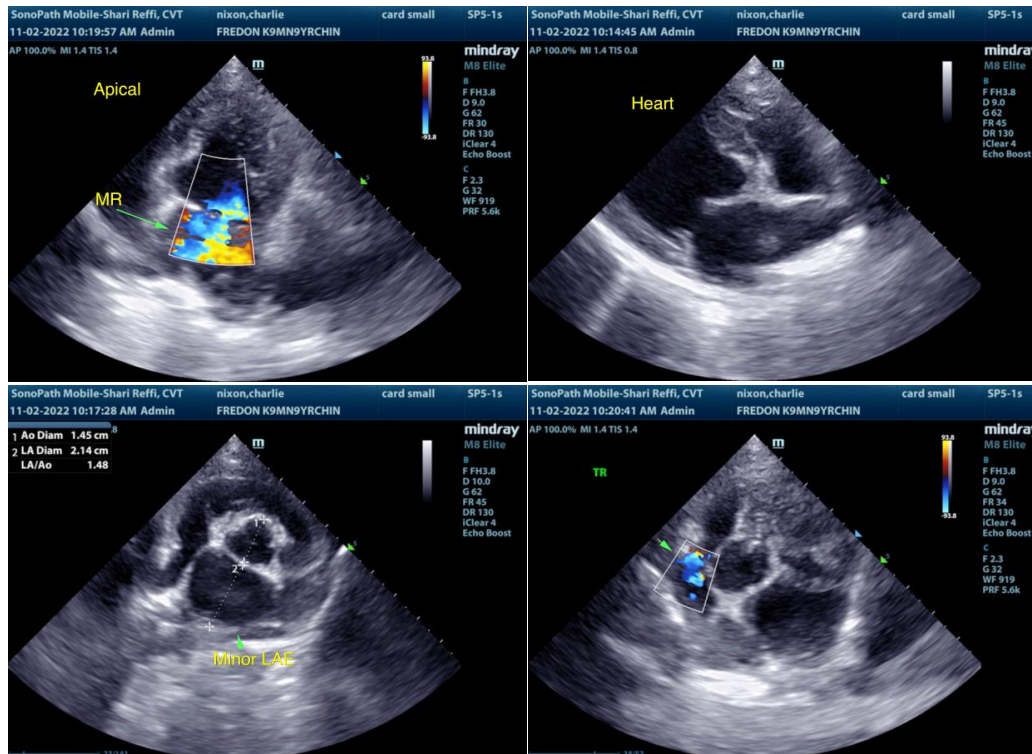
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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.

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