



PATIENT PRESENTING CLINICAL SIGNS

Coco Bozzelli Grade 4 heart murmur noted. Medications include Clindamycin and Metacam(dental disease). HR 120 RR 36. Blood pressure N/A. Needs to undergo GA for extensive dental.

SPECIES Abnormal PE/Chem/CBC/UA Results: Chol 2.7(low Retics 111.6(high) Platelets high 505 and PCT high 0.53

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Pomeranian

SEX

MN

AGE

14 years

WEIGHT

2.2 kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Ancaster

REFERRING VET

Dr. Wittenrich

INVOICE

15667

DATE

12/20/22

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
CARDIAC PARAMETERS	VMAX (m/s)	VMAX (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NM	NM	1.1	1.1	39	74	0.24
CANINE	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)
CARDIAC PARAMETERS							
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	104	1.5	0.84		2.0	1.95	

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 mild thickening consistent with mild endocardiosis. No overt valvular prolapse or chordae tendinea rupture was noted. Doppler indicated mild 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 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). Trace pulmonic insufficiency was present on Doppler. 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. No arrhythmia was noted.



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ULTRASONOGRAPHIC FINDINGS

- Compensated mitral valve disease (ACVIM B1)
- Trace pulmonary insufficiency

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This study is consistent with mild chronic degenerative valvular changes with secondary mild eccentric MR. No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension. The lack of LA or LV enlargement indicates that the risk secondary to MR at this stage is low.

In a nonclinical patient without evidence of significant chamber enlargement, cardiac medications are not indicated at this stage. Prognosis may be considered highly variable and sonographic monitoring is suggested. Recheck echocardiogram is suggested in 6-12 months, sooner if clinical signs arise. No overt anesthetic contraindications, assuming normal systemic BP. The following anesthetic protocol is recommended with appropriate anesthetic IV fluid use.

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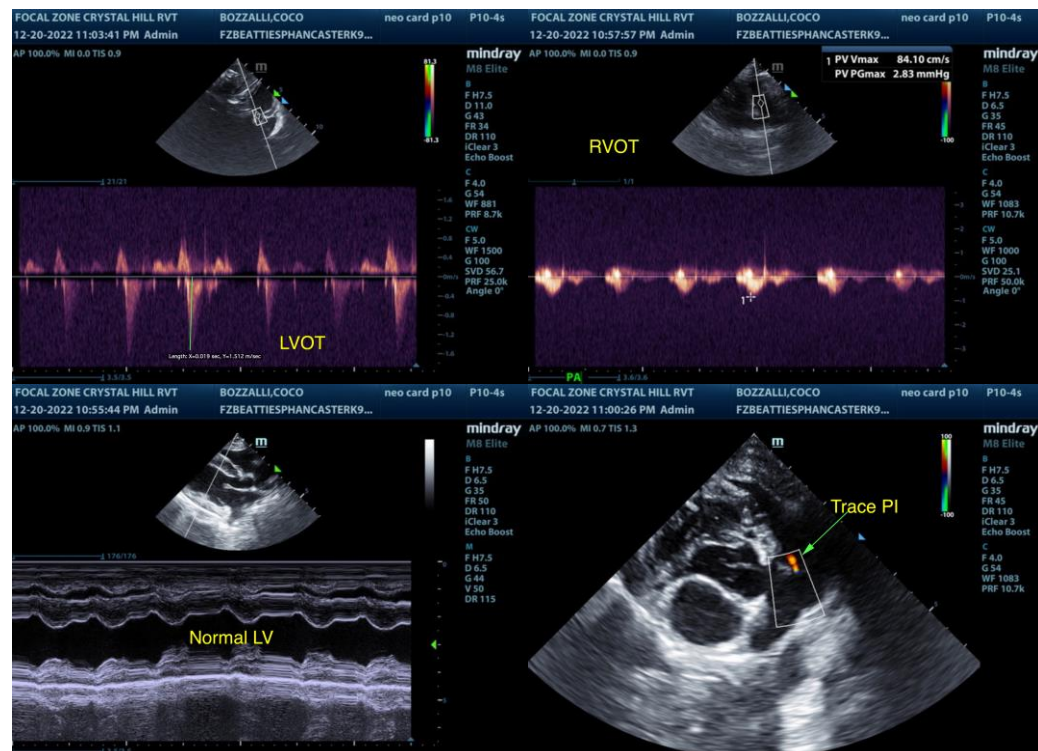
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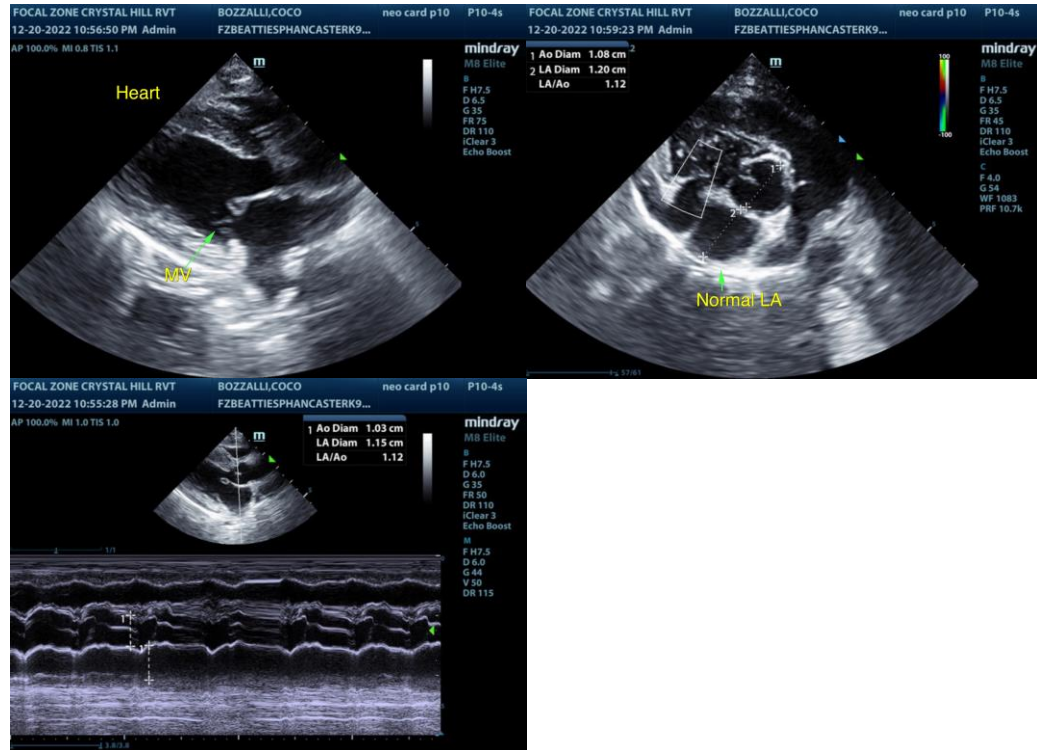
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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