



## PATIENT

Buddy Ghiardi

## SPECIES

Canine

## BREED

Shih

## SEX

FS

## AGE

9

## WEIGHT

10

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Hunt

## HOSPITAL NAME

Bayshore VH

## REFERRING VET

Dr. Tim Hunt

## INVOICE

12808

## DATE

12/14/21

## PRESENTING CLINICAL SIGNS

Murmur ausculted at another clinic, had episode of poss syncope

## 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	5.9		NM	1.4	39.3	73.2	0.2
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	130	NM	NM		3.1	2.6	

## Cardiac Presentation

The echocardiogram in this patient demonstrated mild **left atrial** enlargement s based on 2 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis with mild valvular prolapse. 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. 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

### Primary Findings

- Chronic mitral valve disease (ACVIM Early B2)



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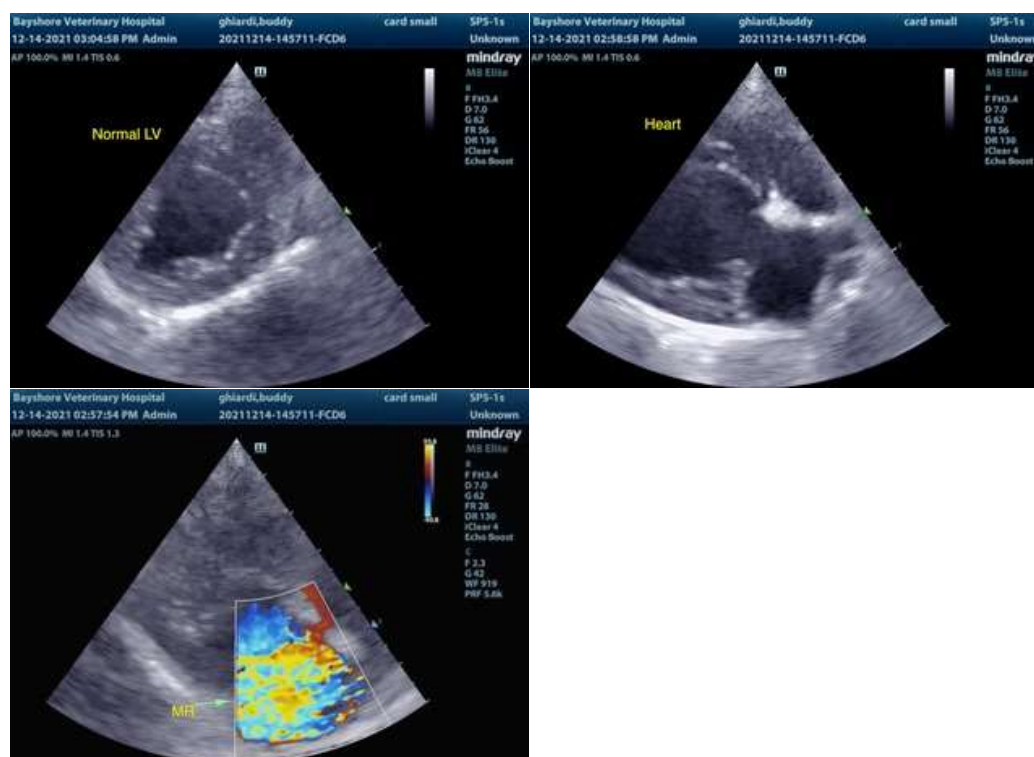
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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with mild valvular prolapse and secondary eccentric mitral valve Insufficiency. The mild left atrium enlargement indicates that the risk for future complication is mildly elevated, yet prognosis at this stage is highly variable. Given the lack of significant left atrium or left ventricle enlargement, clinical signs associated with congestive failure are not anticipated. However, potential for paroxysmal arrhythmia, given the potential syncopal episode, cannot be definitively excluded. No other clinical issues such as systolic dysfunction or overt clinical pulmonary hypertension were present. This patient may be considered borderline for the use of Pimobendan based on Epic Study Criteria. If continued evidence of potential syncope, ECG assessment +/- Pimobendan trial with an assessment of clinical response could be considered. Screening blood pressure is recommended, given the borderline elevated mitral regurgitation velocity. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs suggestive of congestion or recurrent episodes of potential syncope are noted.



The information and recommendations provided are based on the images presented by the referring veterinarian. 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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