



**PATIENT**

Sammy Hahn

**SPECIES**

Canine

**BREED**

Bichon Frise

**SEX**

M

**AGE**

13yr

**WEIGHT**

11.2lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Val Shumskaya

**HOSPITAL NAME**

Westwood Regional  
VH

**REFERRING VET**

Dr. Hartwick

**INVOICE**

13257ag

**DATE**

03/22/2023

**PRESENTING CLINICAL SIGNS**

Out for a walk today / urinated + defecated normally then continued to walk - look at owner and fell over. not sure if collapsed or tripped. Was responsive + tried to get up. Owner panicked grabbed him and ran here. Grade V/VI murmur. Lungs clear. R/o Syncope vs ortho vs seizure - not likely . 2 nights of wheezing at night poss. cough (not reverse sneezing)

Abnormal PE/Chem/CBC/UA Results: CBC wnl, Chem 17 = TP 8.3, Clob 4.6, ALT= 240 (10-125) chronic

**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	<1.3	28-40	40-100	<0.6
PATIENT			1.7	1.6	50	83	0.18
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	142	1.1	1.1		2.8	2.4	

**Cardiac Presentation**

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. Subtle deviation of the interatrial septum towards the right atrium suggestive of mild increased left atrial pressure was noted. The cranial and caudal mitral valve leaflets presented moderate thickening (anterior greater than posterior) consistent with endocardiosis. Mild prolapse of the septal leaflet was present. Doppler indicated moderate eccentric insufficiency. The left ventricle presented normal thicknesses with linear contour and was not dilated nor restricted. The myocardium presented mild non uniform echogenicity which may suggest mild myocardial remodeling. 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. Normal measured LVOT velocity. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Normal measured RVOT velocity. 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 overt arrhythmia.

**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (ACVIM B2) with mild septal leaflet prolapse.



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- Mild TR-no evidence of clinical pulmonary hypertension.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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The cardiac presentation suggests mild progression compared to the previous echo with mild LA enlargement. The degree of LA enlargement is not significant and not overtly consistent with left heart volume overload. No other clinical issues such as LV systolic dysfunction or pulmonary hypertension. Congestive criteria is considered unlikely. Given lack of significant structural cardiomyopathy, no overt indication for cardiac medications yet technically Pimobendan 0.25 mg/kg PO BID could be considered given the mild LA enlargement.

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Bichon Frise

Potential for paroxysmal arrhythmia cannot be definitively excluded. If continued potential syncopal episodes, ECG and/or Holter monitor may be indicated.

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Prognosis is highly variable and serial sonographic monitoring is required for further prognosis. Recheck echocardiogram recommended in 6 months, sooner if clinically indicated.

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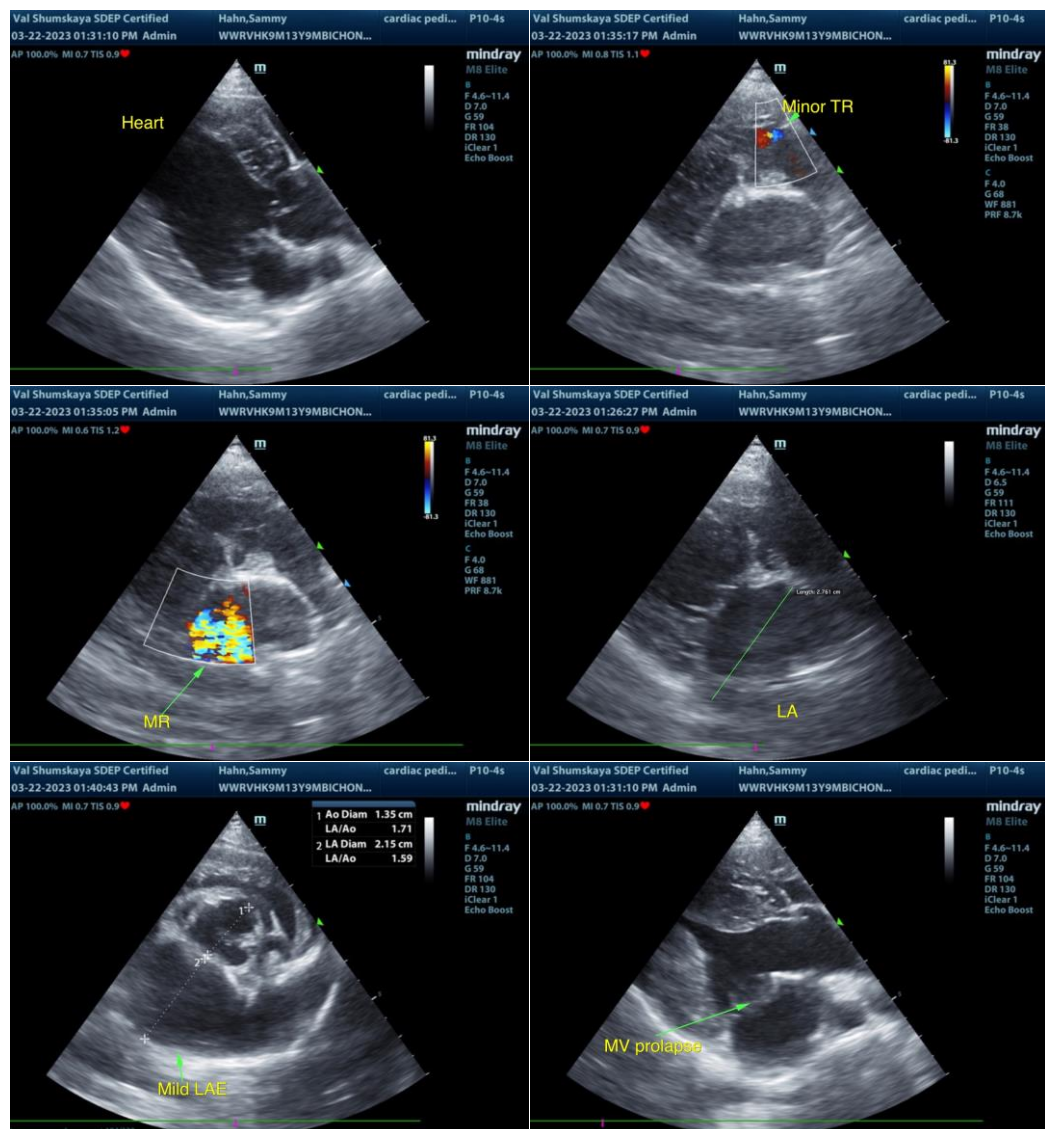
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

**BREED**

Bichon Frise

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[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)

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