



PATIENT

Mia Hagen

SPECIES

Canine

BREED

Chihuahua

SEX

FS

AGE

15 years

WEIGHT

8.5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

For The Love Of
Paws

REFERRING VET

Dr. Frack

INVOICE

15759

DATE

12/30/22

PRESENTING CLINICAL SIGNS

2/6 Cardiac murmur; no auscultable cardiogenic pulmonary congestion.

Abnormal PE/Chem/CBC/UA Results: Furosemide Tablet 12.5 Mg Give ONE tablet by mouth twice daily. Contact clinic with any concerns. | Pimobendan Flex Tabs 7.5mg Give 1/3 a tablet by mouth once daily. Call clinic with concerns. | Enalapril Tablet 2.5mg Give 1 tablet by mouth once daily. Call clinic with concerns. | Hills Canine C/d

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		1.3	1.2	49.3	83	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 shortaxis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.1	0.8		2.2	2.4	

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 moderate thickening consistent with endocardiosis. Potential for minor septal leaflet prolapse is noted although not definitive. 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. Normal measured LVOT velocity was noted. Trace aortic insufficiency was 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 concurrent mild thickening. Possible minor TR was present on Doppler, although not considered clinically significant. The **right ventricle** was of normal size (1/3 diameter of LV), chordae



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structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). Normal measured RVOT velocity was present. 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)
- Trace aortic insufficiency

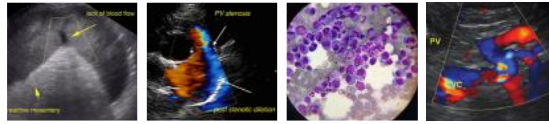
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of LA / LV enlargement indicates that the risk of complications secondary to MR as the primary cause of the murmur is low. No other additional clinical issues such as LV systolic dysfunction, overt additional significant valvular insufficiencies, or evidence of clinical pulmonary hypertension.

In a nonclinical patient without evidence of significant chamber enlargement, cardiac medications are not overtly indicated. ACE inhibitor medication would only be suggested if evidence of increased systemic BP > 130 (Not advised if systemic BP < 130).

Continued cardiac diet would be reasonable along with possible mild salt restriction and Omega-3 fatty acid supplementation. Prognosis is considered variable and serial sonographic monitoring is suggested. Recheck echocardiogram is recommended in 6 months, sooner if clinical signs consistent with left heart disease i.e., exercise intolerance, increased resting respiration rate, etc., arise.





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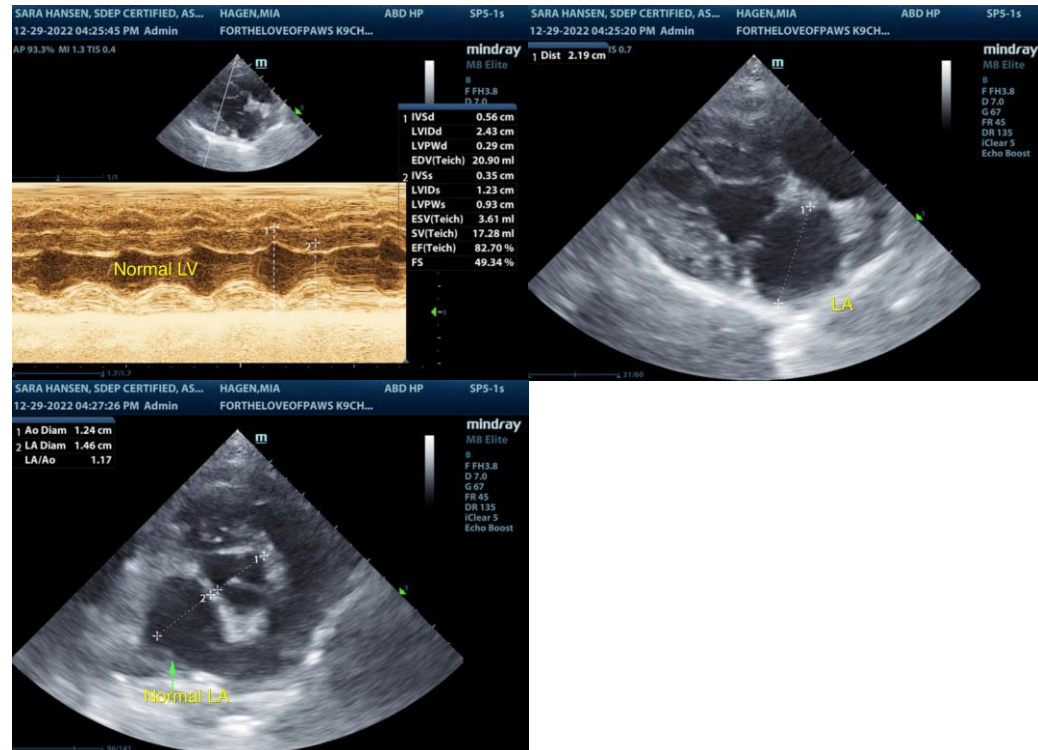
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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