



**PATIENT**

Ninah Estrada

**SPECIES**

Canine

**BREED**

Mix

**SEX**

Spayed Female

**AGE**

9 Years

**WEIGHT**

16 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Callihan

**HOSPITAL NAME**

Pacific Crest Mobile

**REFERRING VET**

Dr. Varney - Skagit AC

**INVOICE**

33145

**DATE**

11/30/21

**PRESENTING CLINICAL SIGNS**

Presented to primary care on 11/20/21 for evaluation of a limp in L hind duration 2 mos. Wt gain, low energy.

Abnormal PE/Chem/CBC/UA Results: Nothing noted on PE to account for lameness reported. Murmur not quantified but described as radiating over left side, loudest over pulmonic valve. Today, murmur is loudest over right base, 2/6. Right heart enlargement noted on radiographs CBC normal other than elev HCT 58% Mild elev lipase; slight elev CK; Chems otherwise normal including thyroid panel.

**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	5.31		1.1	1.3	40		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				
PATIENT		2.1	1.2		3.2	2.5	

**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 vegetative thickening consistent with endocardiosis. Mitral insufficiency was fairly mild and centralized. 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**

- Stage B1 valvular disease, minor



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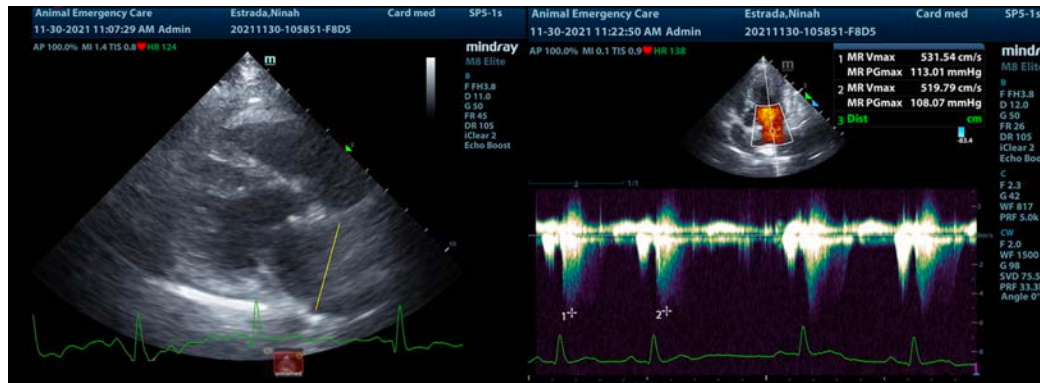
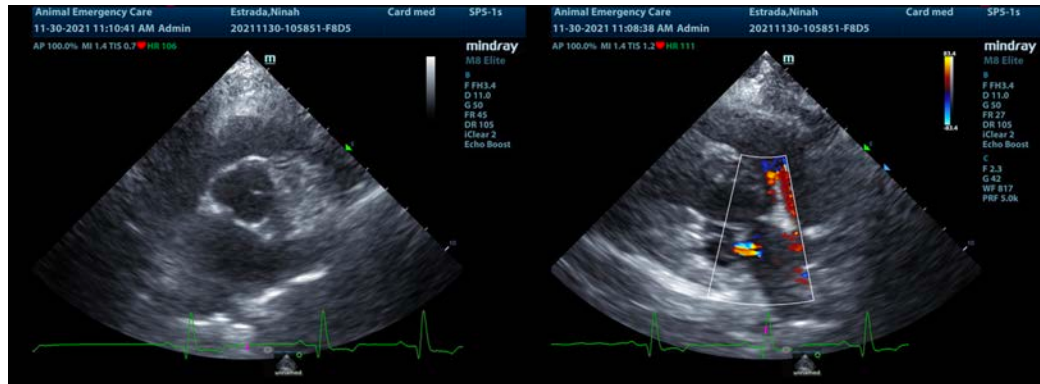
Pacific Crest Mobile

**REFERRING VET**

Dr. Varney - Skagit AC

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of volume overload or cardiac dysfunction. No evidence of cardiac enlargement. However, in the extracardiac space there is a large amount of fat. This may superimposing onto the cardiac silhouette, creating the appearance of cardiomegaly. All chamber sizes are sonographically normal.



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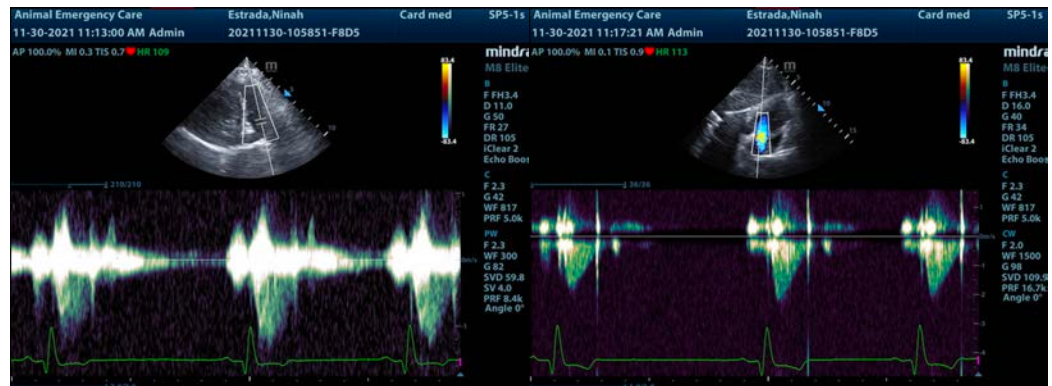
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
[info@SonoPath.com](mailto:info@SonoPath.com)