



**PATIENT**

Polar Villamar

**PRESENTING CLINICAL SIGNS**

Patient presents for follow up echo, last one performed in 2019. Grade 4/6 heart murmur, patient is coughing. Current meds: Lasix, enalapril, and Vetmedin.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Chihuahua

**SEX**

Neutered Male

**AGE**

14 Years

**WEIGHT**

9 Pounds

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	6.0	3.2	NM	3.1	38	60	NM
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		1.6	0.83		4.72	3.46	

**Cardiac Presentation**

The echocardiogram for this patient presented severe **left atrial enlargement** expressed both in the LA/AO and LA max measurements. Tachycardia and occasional arrhythmia noted. Complete filling of the left atrium noted on color flow assessment of the mitral valve. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Prolapse of the anterior mitral valve leaflet noted. 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** insufficiency noted at 3.2 m/sec, consistent with pulmonary hypertension. 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.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

North Jersey AH

**REFERRING VET**

Dr. Mark Reidel

**INVOICE**

33363

**DATE**

12/9/21

**ULTRASONOGRAPHIC FINDINGS**

- Mitral and tricuspid insufficiency, decompensated compared to prior sonogram, Stage C1 valvular disease
- Left-sided congestive heart failure



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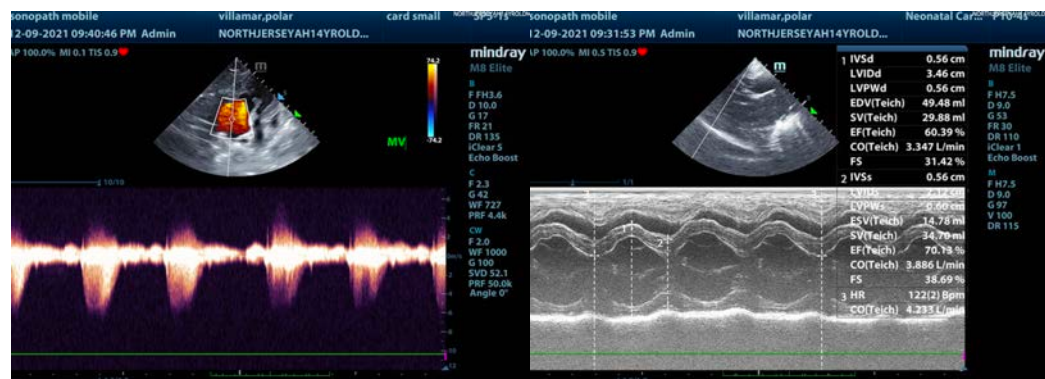
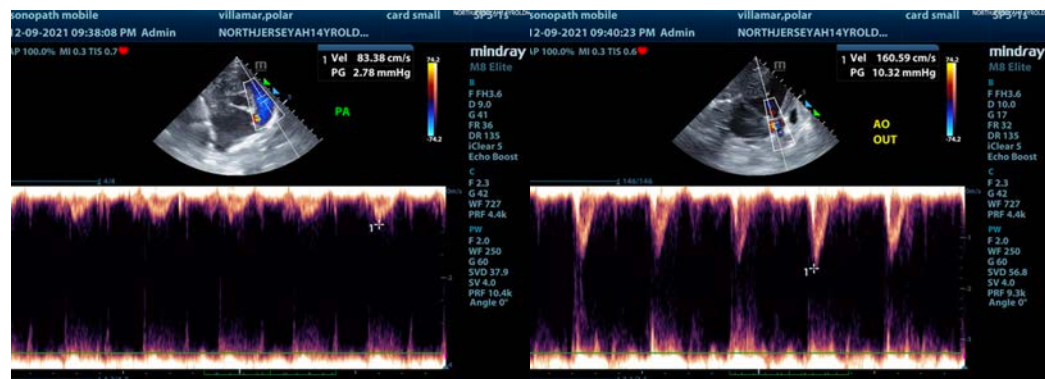
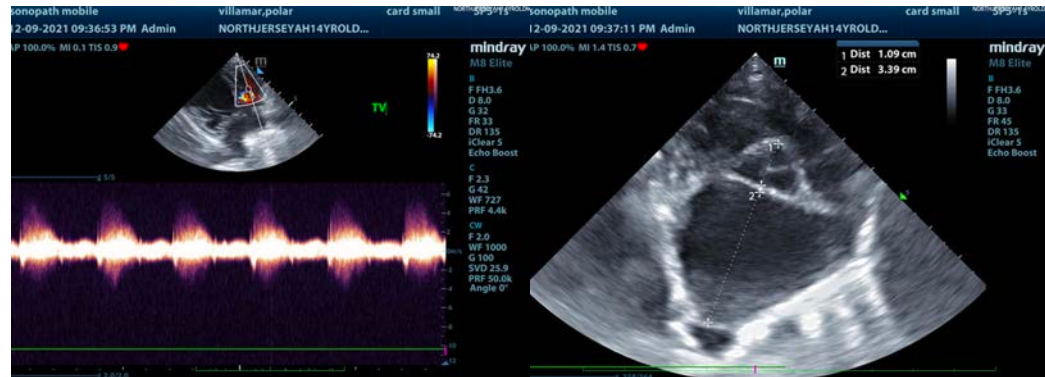
North Jersey AH

**REFERRING VET**

Dr. Mark Reidel

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recommend continuing triple therapy in this patient and adding Spironolactone 1-2 mg/kg BID. Recommend ensuring Enalapril is maximized at 0.5 mg/kg BID, and Lasix can be utilized to reach respiratory tranquility. VetMedin could be increased to TID dosing at 0.3 mg/kg BID if necessary. Prognosis is extremely guarded. This patient is at risk for sudden death.



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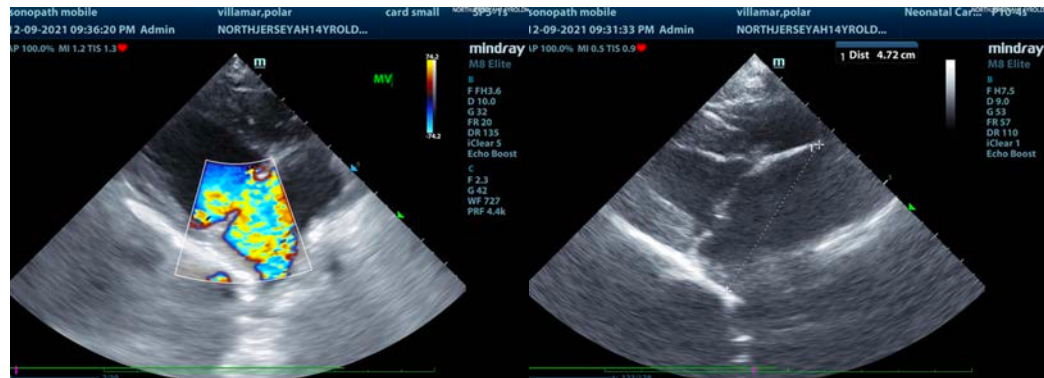
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
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