



## PATIENT

Sydney Lupo

## SPECIES

Canine

## BREED

Havanese

## SEX

Spayed Female

## AGE

16 Years

## WEIGHT

9 Years

## PRESENTING CLINICAL SIGNS

History: grade 5 heart murmur, owner think she is starting to have something like seizure or syncope . coughing occasionally

Abnormal PE/Chem/CBC/UA Results: xray shows left side cardiomegaly

## 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	5.52	3.8	NM	>2.5	45	--	0.1
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	--	--	--	--	4.1	3.5	--

## INTERPRETED BY

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

## IMAGING PERFORMED BY

Samuel Gabriel

## HOSPITAL NAME

Central Jersey AH

## REFERRING VET

Dr. Gabriel

## INVOICE

12668

## DATE

8/21/21

## Cardiac Presentation

The echocardiogram for this patient presented excessive **left atrial size** expressed both in the LA/AO and LA max measurements Chamber volumes and echogenicity were normal. A prolapsed anterior **mitral** valve leaflet noted. Doppler indicated measurable 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. No evidence of masses was noted or chamber overload. **Tricuspid** insufficiency noted with mild right atrial enlargement, 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. Tachycardia was noted during the exam.

## ULTRASONOGRAPHIC FINDINGS

- Stage C1 valvular disease
- Mitral prolapse



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- Concurrent pulmonary hypertension
- Tachycardia noted during the exam

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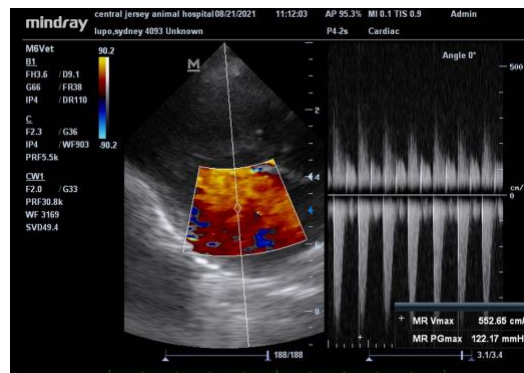
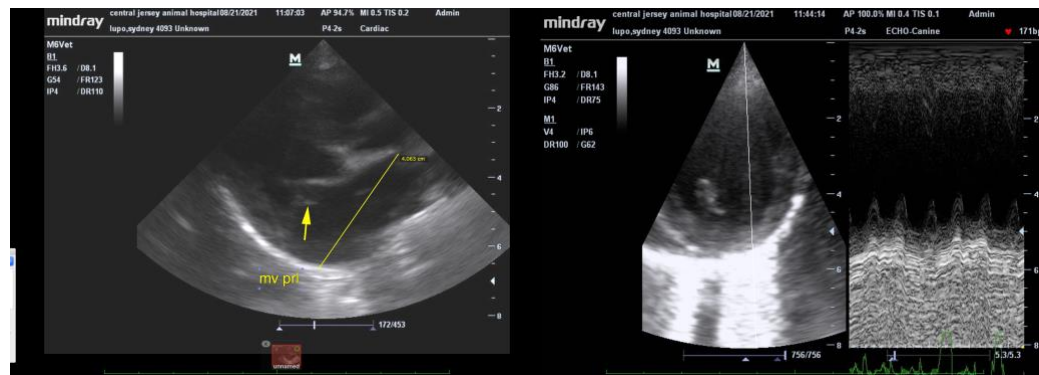
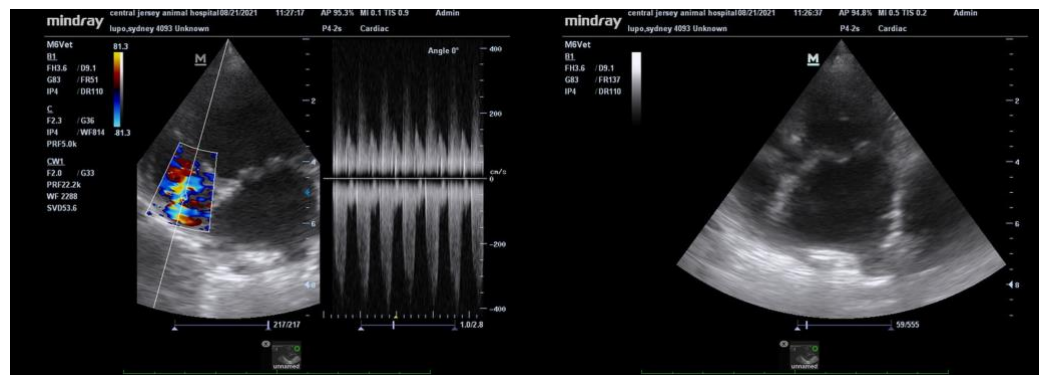
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Triple therapy indicated in this patient, Lasix at 2 mg per kg BID, Ace-inhibitor 0.5 mg per kg SID progressing to BID and Pimobendan at 0.3 mg per kg BID. Blood pressure measurements indicated. The cardiac presentation is very precarious. I recommend recheck echo in 2 weeks. Limited exertion on this patient until heart is stabilized. This patient is at risk for sudden death.



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



**PATIENT**

can be of any further assistance please contact me.

Sydney Lupo

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com

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