

**PATIENT PRESENTING CLINICAL SIGNS**

Mya McLaren

**SPECIES**

Canine

**BREED**

Havanese

History: Patient presents for: Last night coughing like trying to vomit/something stuck in throat, got down off couch still coughing then collapsed/hit head on floor and started yelping. Recovered fine but breathing more rapid. In middle of night happened again coughing/fell over yelping. Breathing still labored. This morning not coughing as much. Normal urine/stool this morning. No interest in dinner last night or breakfast, but not unusual. History of: Heart murmur first noticed 3 years ago. Owner has been monitoring SRR and usually 14-16, was higher last night. No known medical issues or sensitivities Medications: None; Diet = Freeze-dried, grain-free Murmur 4/6 left apical; resp rate on admit 52/min; was given 1 IV dose furosemide 4 mg/kg 3 hr prior to echo. Responded well, did not require oxygen, resp rate and effort normalized through day -radiographs showed cardiomegaly w enlarged left atrium, pulmonary pattern consistent w pulm edema

**SEX**

Spayed Female

**AGE**

12 years

**WEIGHT**

4.6 kg

**INTERPRETED BY**

Eric Lindquist, DMV DABVP, Cert. IVUSS

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram in this patient demonstrated enlarged **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. Prolapse of the anterior mitral valve was 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** insufficiency was noted and measured 2.4 m/sec. 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.

**IMAGING PERFORMED BY**

Dr. Callihan

**HOSPITAL NAME**

Animal Emergency Care

**REFERRING VET**

Dr. Bailey

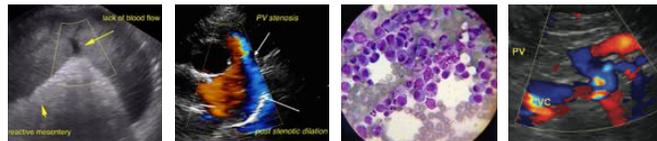
**INVOICE**

91034

**DATE**

8/7/21

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
<b>CARDIAC PARAMETERS</b>	<b>VMAX</b> (m/s)	<b>VMAX</b> (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>		2.4	1.9	1.64	48	81	NM
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
<b>CARDIAC PARAMETERS</b>	(BPM)	<b>VMAX</b> (m/s)	<b>MAX</b> (m/s)	(kg)	2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6				
<b>PATIENT</b>		NM	1.24	4.6	3.56	3.22	



**PATIENT**

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**ULTRASONOGRAPHIC FINDINGS**

Mitral valve insufficiency.

Mild left atrial enlargement with prolapse of the anterior mitral valve leaflet.

Stage B2 valvular disease.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend adding Pimobendan at 0.3 mg/kg b.i.d. along with Lasix at 2-3 mg/kg b.i.d. However, there may also be respiratory component to the cough as only mild left atrial enlargement is noted. Primary respiratory therapy may also be necessary. Recheck echocardiogram is recommended in a month. Blood pressure measurements are warranted if not already performed.

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Assessment of BUN, creatinine, USG, chest radiographs and blood pressure as well as clinical exam is ideal in 7-10 days. Basal respiratory rate should be <20/min.

**AGE**

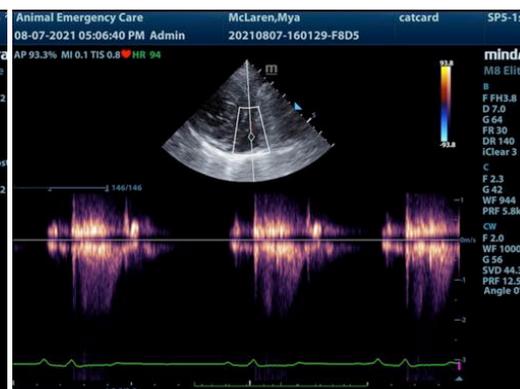
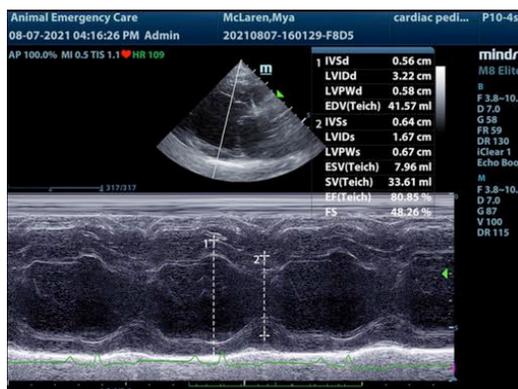
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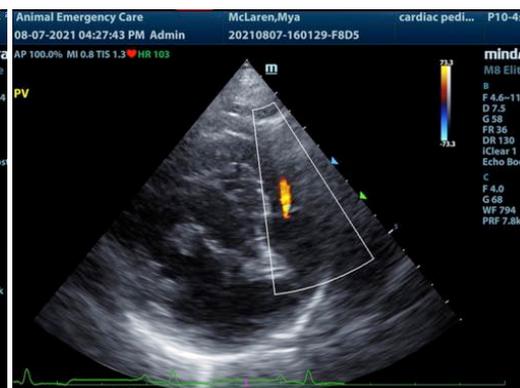
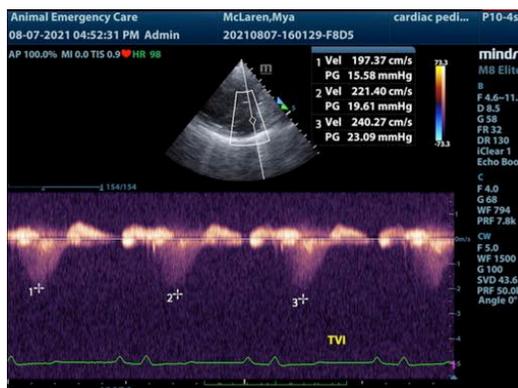
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Eric Lindquist, DMV  
DABVP, Cert. IVUS



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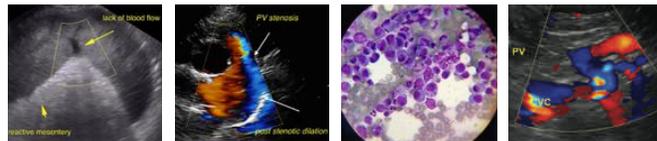
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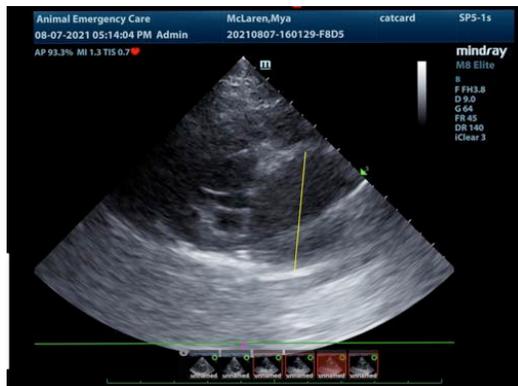
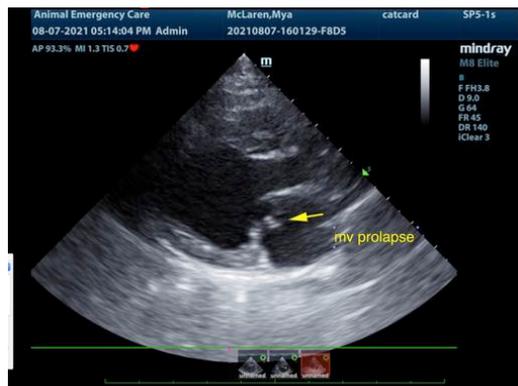
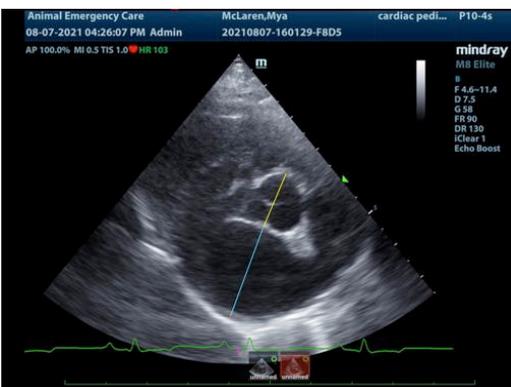
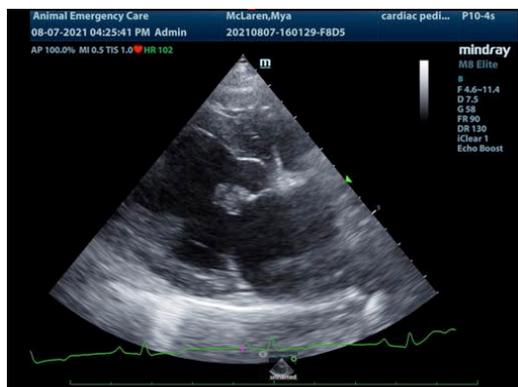
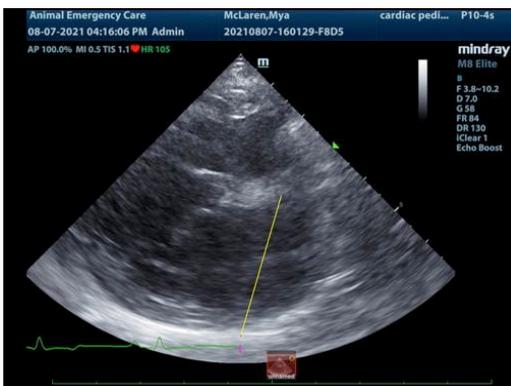
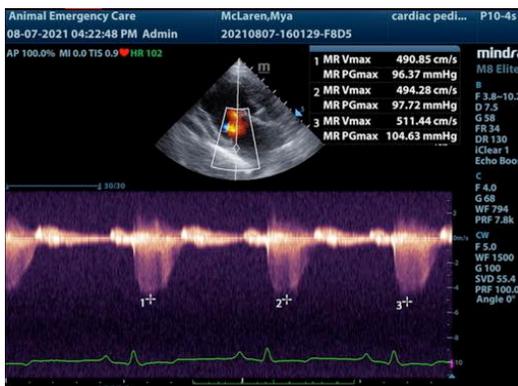
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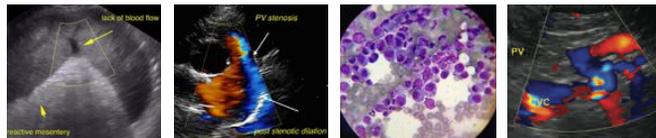
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veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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