



PATIENT

Shorty Borland

PRESENTING CLINICAL SIGNS

History: cardiomegaly noted on rads; elevated pro bnp

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Chihuahua Mix

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The **mitral** valve was mildly vegetative with slight prolapse. Eccentric mild to moderate mitral insufficiency was noted with eccentric jet without volume overload. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease.

SEX

Neutered male

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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** 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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

AGE

9 years

WEIGHT

6 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

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	-	-	1.3	1.0	35	90	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	BELOW	BELOW	BELOW	BELOW
PATIENT		-	-	6 lbs	2.0	1.37	

IMAGING PERFORMED BY

Jill Rumachik

HOSPITAL NAME

Clarity Imaging LLC

REFERRING VET

Dr. Sheldon

INVOICE

39444

DATE

9/16/22



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ULTRASONOGRAPHIC FINDINGS

Stage B1 valvular disease.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no evidence of volume overload. No treatment is recommended at this time. A large amount of respiratory artifact made this echocardiogram challenging. Sedation on follow-up is recommended. Torbutrol or other opioid would be appropriate. Some excessive thoracic fat was noted in this patient. There was no evidence of volume overload. Blood pressure measurements are recommended.

The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor maintenance or similar protocol if anesthesia is desired. Blood pressure recommended if not already performed and target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6 months, earlier if murmur grade increases or clinical signs initiate.

The left sided volume appears compensated at this time. It is difficult to say if Pimobendan and enalapril are necessary in this patient as there is no precedent information on left atrial and left ventricular size from an echocardiography standpoint nor hypertension to justify the medications. However, if prior radiographs suggest left atrial enlargement or left CHF then I would maintain the Pimobendan, If blood pressures are high normal and there is no azotemia then enalapril could be continued as well

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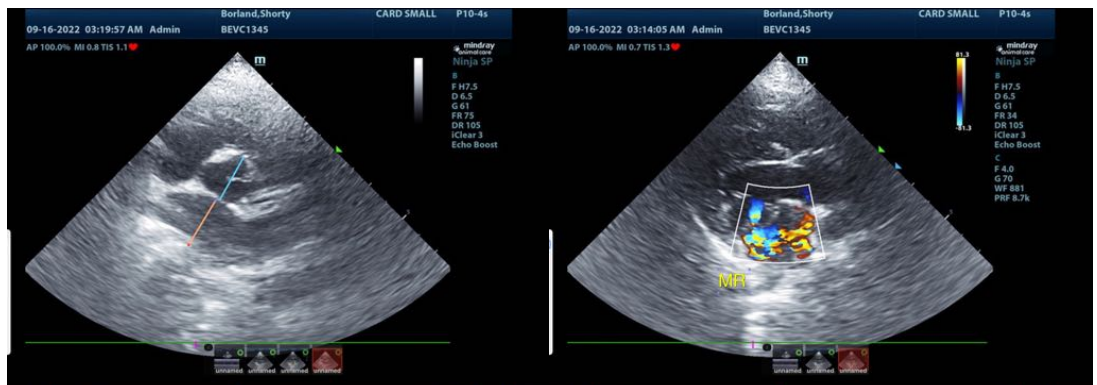
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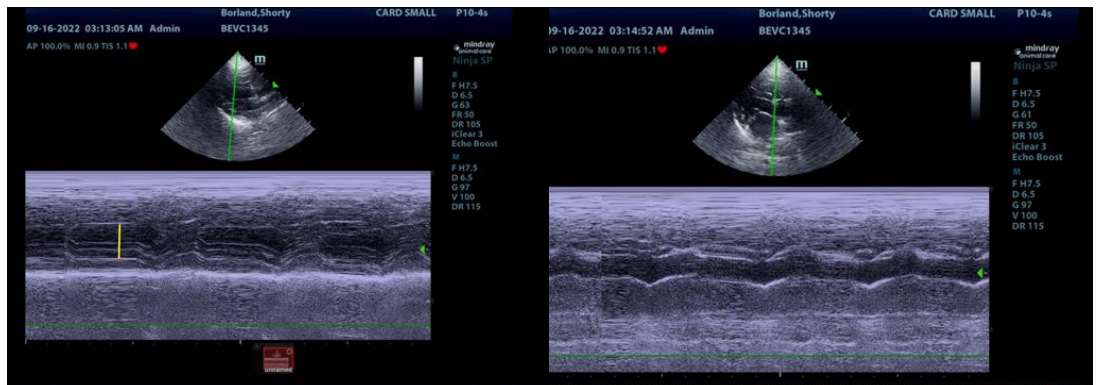
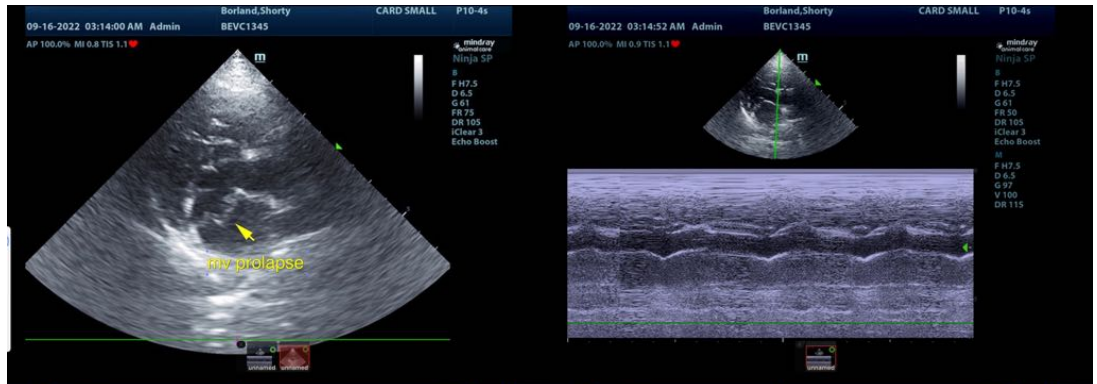
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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