



PATIENT PRESENTING CLINICAL SIGNS

Skywalker Li
Heart murmur 3-4/6. No current meds.
Abnormal PE/Chem/CBC/UA Results: WNL 3/13/23

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Yorkie

SEX

Neutered Male

AGE

10 Years

WEIGHT

16.3 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

North Jersey AH

REFERRING VET

Dr. Couture

INVOICE

44482

DATE

8/4/23

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	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.78		1.8	1.8	39	71	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	BELOW	BELOW	BELOW	BELOW
PATIENT	137	2.1	1.05		3.8	3.44	

E-Wave = 0.54

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. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. 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. **Aortic** insufficiency noted at 4.73. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** insufficiency noted. 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. Hepatic veins were not dilated. Pulmonary hypertension not evident.

ULTRASONOGRAPHIC FINDINGS

- Mitral insufficiency and left atrial enlargement, Stage B2 valvular disease



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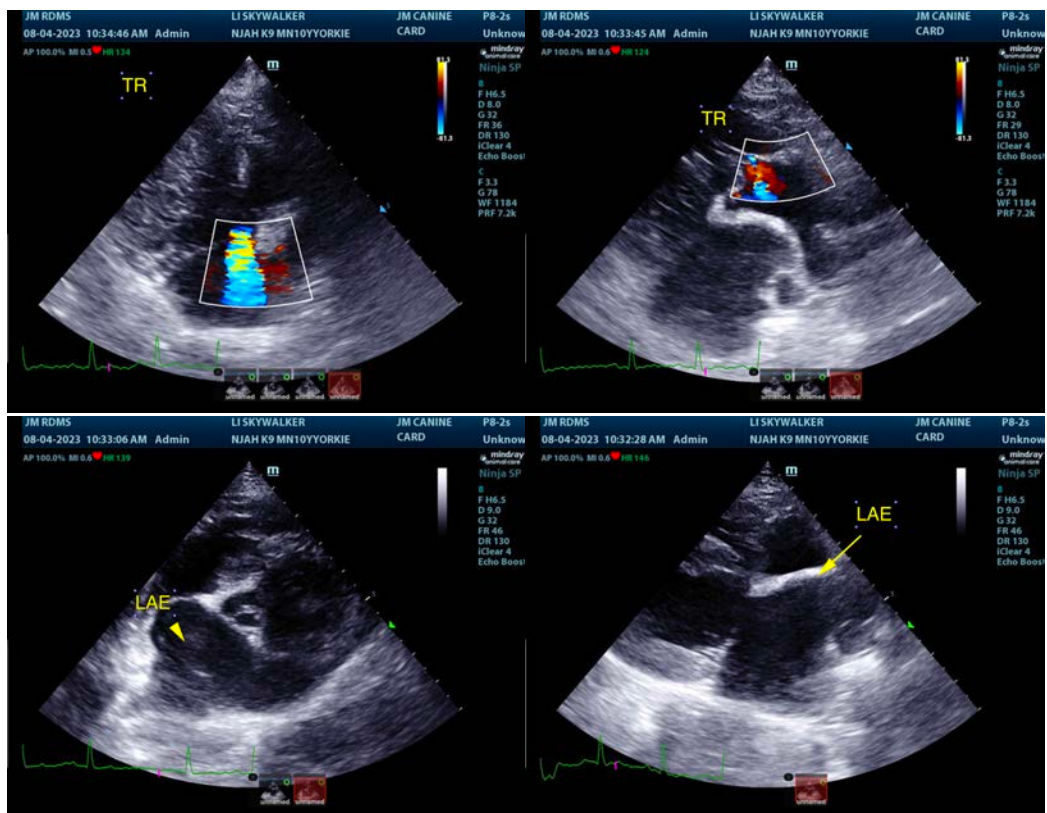
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I'm concerned about emerging left-sided failure in this patient. Blood pressure measurements are essential in this patient to assess systemic hypertension. Pimobendan could be initiated at 0.3 mg/kg BID. ACE inhibitor 0.5 mg/kg SID progression to BID plus Spironolactone at 1-2 mg/kg BID could also be added. However, there is no consensus on this combination in advanced Stage B2. However, some specialists feel it be preventative in Stage B2-B2+, which is where this patient falls.

The heart has some volume overload and is working to compensate for the valvular insufficiency. Target respiratory rate is < 20 resp/minute after therapy. After initiating therapy, I recommend recheck on the clinical exam, BUN, Creatinine, USG, Chest radiographs & Blood pressure in 5-7 days. Recheck echo in 1 month. Earlier if clinical decompensation is occurring. I do not recommend anesthesia at this time until stabilization has occurred on the recommended medications. Repeat preanesthetic echo is ideal if anesthesia is eventually necessary. There is moderate anesthetic risk for this patient. I recommend cardiac treatment prior to sedation unless only light opioids are utilized which would have minimal effect on heart function.





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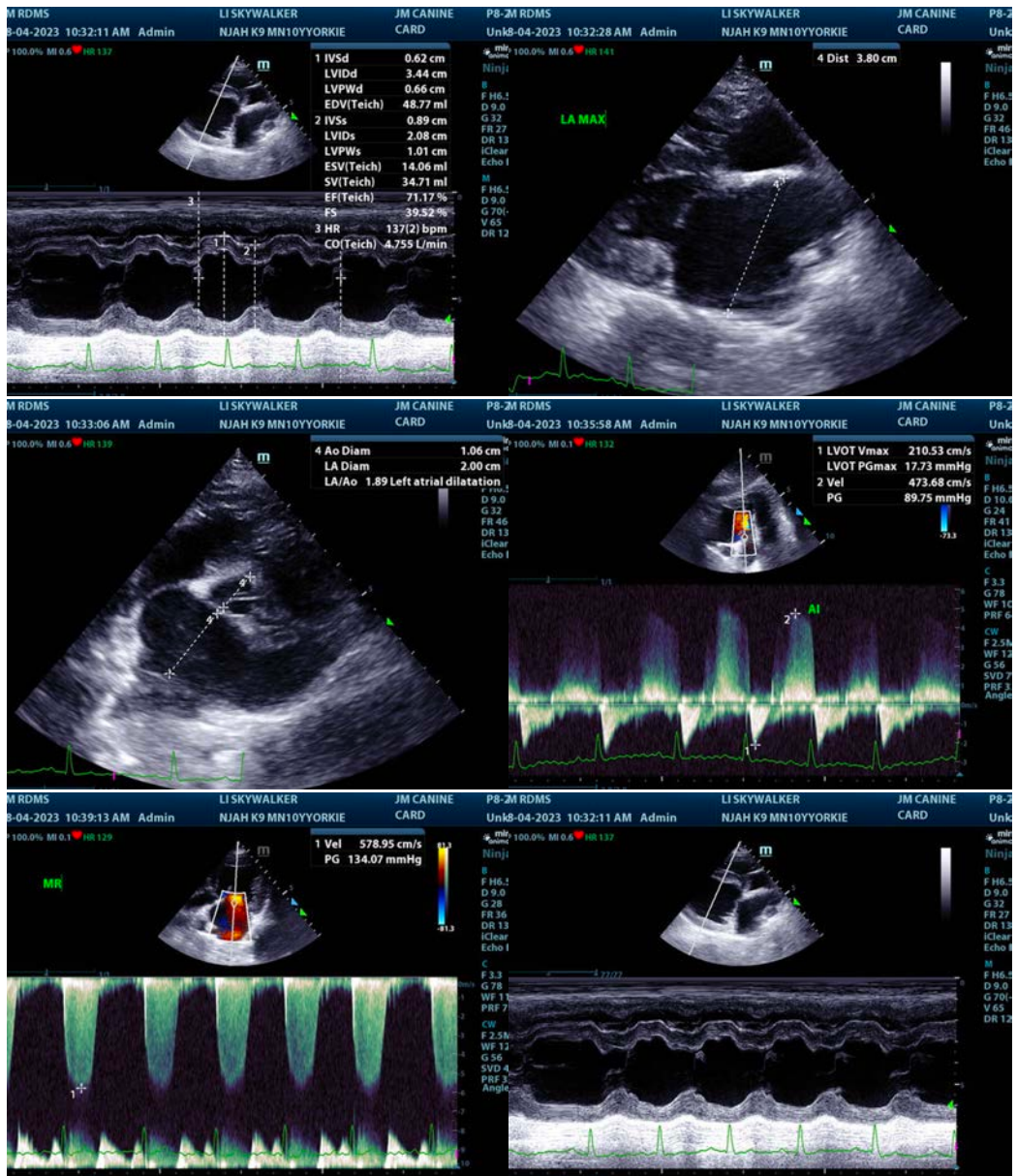
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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