



**PATIENT PRESENTING CLINICAL SIGNS**

Nibbles Raff Grade IV/VI murmur. (Prev. report from 5/2020 attached) Current meds: Furosemide 12.5mg 1/2 sid  
Abnormal PE/Chem/CBC/UA Results: NSF

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

BREED

Maltese

SEX

Spayed Female

AGE

13 years

WEIGHT

6.5 lbs

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. Severe prolapse of the anterior mitral valve leaflet was noted. Doppler indicated measurable insufficiency. Complete filling of the left atrium was noted on color flow assessment of the mitral valve. 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. Mild **tricuspid** insufficiency was noted at 1.6 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.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Mount Olive VH

**REFERRING VET**

Dr. Logan

**INVOICE**

95591

**DATE**

1/27/22

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	5.04		1.82	2.0	37	69	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				
PATIENT	181	1.1	0.8	6.5 lbs	3.32	2.9	



**PATIENT**                      **ULTRASONOGRAPHIC FINDINGS**

Nibbles Raff                      Stage C1 valvular disease.  
    Severe left atrial enlargement.  
**SPECIES**                      Mitral valve prolapse.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Significant decompensation from the prior echocardiogram was noted. Quadrotherapy is warranted. Lasix 2-4 mg/kg BID, Pimobendan 0.3 mg/kg BID, ACE inhibitor 0.5 mg/kg SID progressing to BID over 5-7 days and Spironolactone at 1-2 mg/kg b.i.d. The patient is at high risk for sudden death. Further rupture of chordae tendineae is likely given the degree of the prolapse compared to the prior echocardiogram.

B2/C1: The heart is in a somewhat precarious state with volume overload and a heart that 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 pre-anesthetic echo is ideal if anesthesia is eventually necessary.

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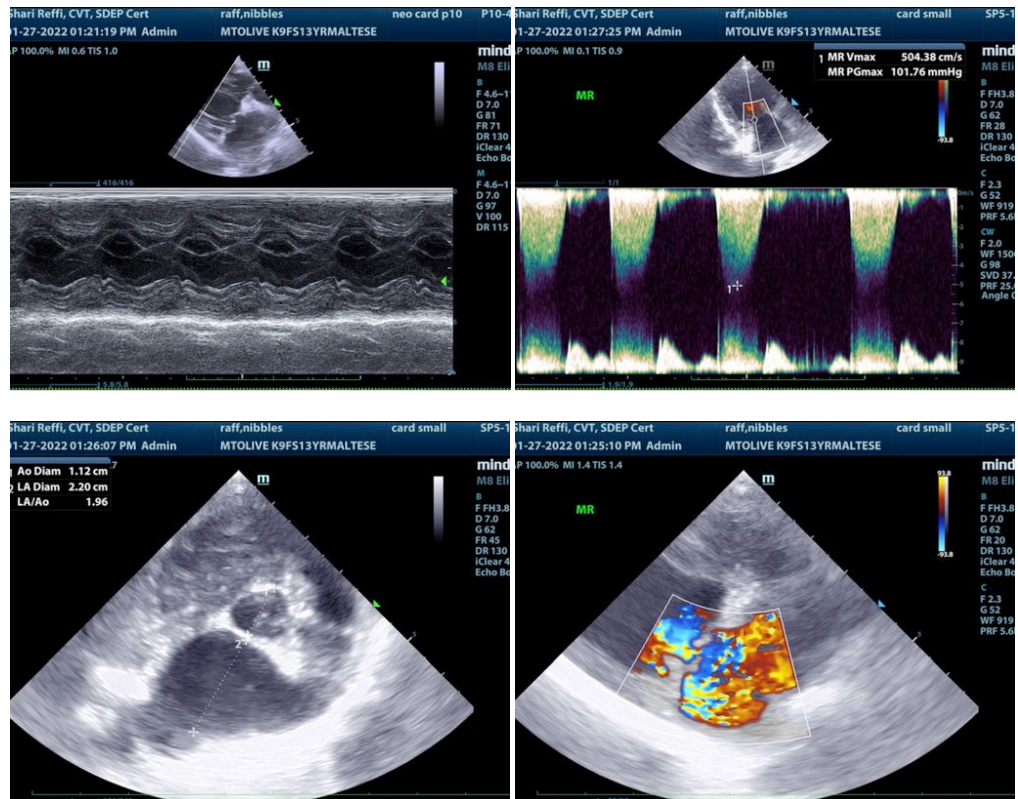
Dr. Logan

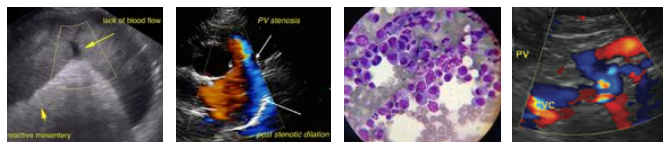
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**PATIENT**

Nibbles Raff

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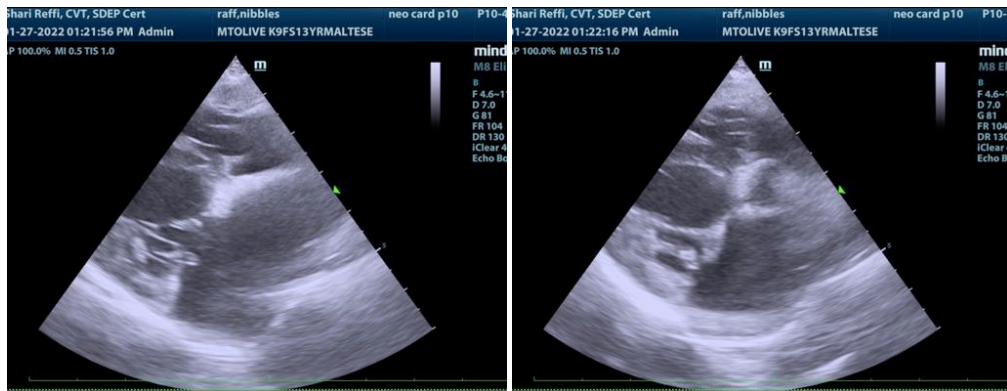
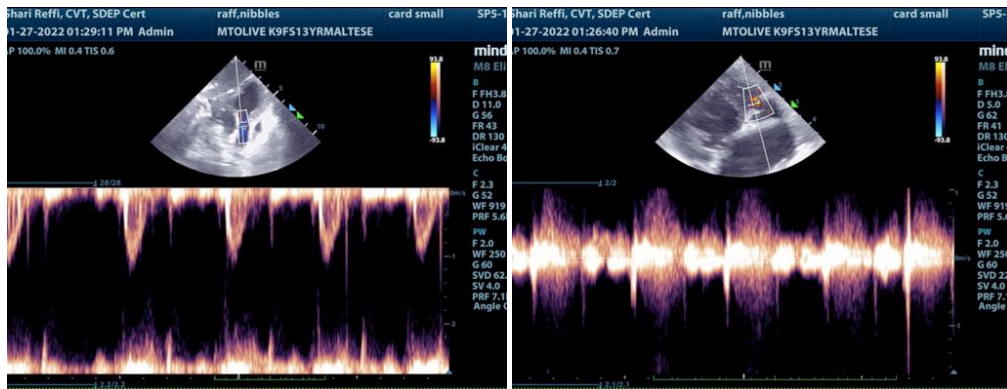
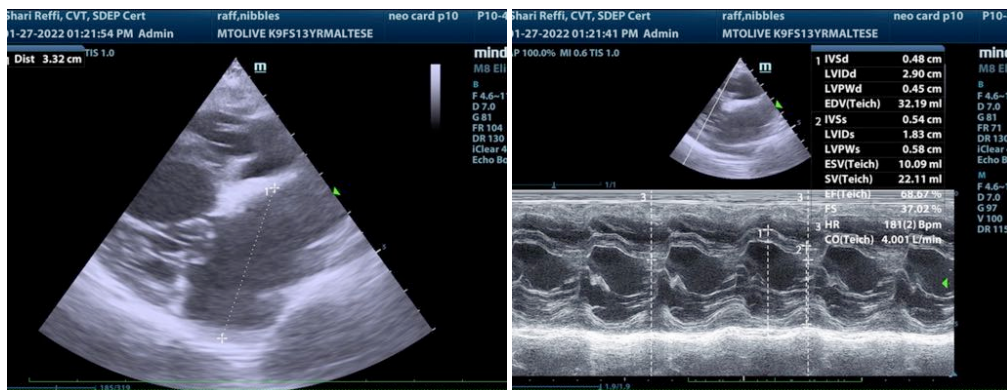
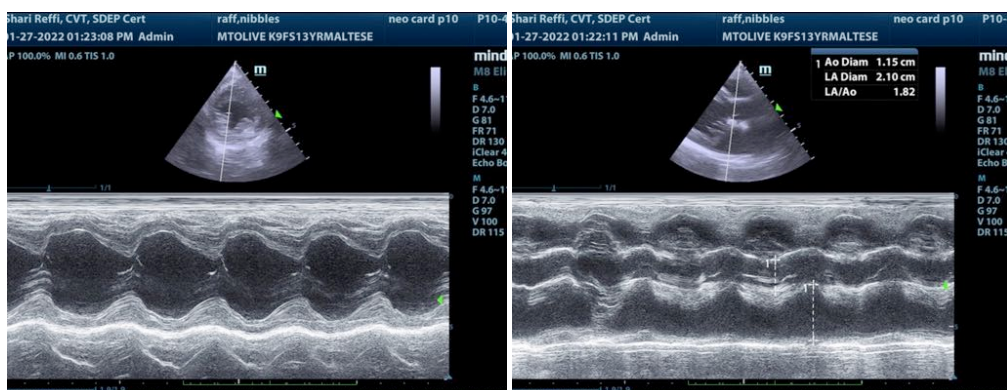
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**PATIENT**

Nibbles Raff

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.

**SPECIES**

Canine

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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Maltese

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

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