

**PATIENT PRESENTING CLINICAL SIGNS**

Rocko Smith Grade 3/5 murmur

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

MN

**AGE**

9 years

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	<1.3	28-40	40-100	<0.6
PATIENT			2.0	2.5	45	76	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	117	1.50	0.90		5.5	5.09	

**INTERPRETED BY**

Eric Lindquist, DMV DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

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**HOSPITAL NAME**

Andover Animal Hospital

**REFERRING VET**

Dr. Hummel

**INVOICE**

10745ag

**DATE**

06/06/2022

**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. Prolapsed anterior mitral valve leaflet was noted. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. The left ventricle presented moderate dilation. Fracture shortening was subnormal consistent with myocardial insufficiency. The right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated adequate linear morphology. 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.

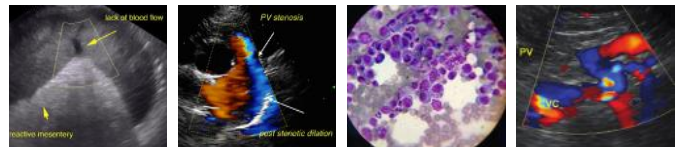
**ULTRASONOGRAPHIC FINDINGS**

- Mitral valve prolapse
- Severe LA enlargement
- LV dilation
- Myocardial insufficiency consistent with stage C1-D1 valvular disease

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Quad therapy is recommended in this patient, Pimobendan 0.3 mg/kg PO BID, ACE inhibitor 0.5 mg/kg PO SID progressing to BID, Lasix 2-4 mg/kg PO BIG and Spironolactone 1-2 mg/kg PO BID.

Recheck echocardiogram in 7-10 days. Prognosis is very guarded. Patient is at risk for sudden death.



**PATIENT**

Rocko Smith

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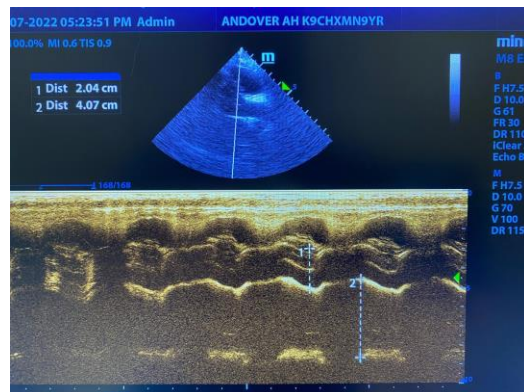
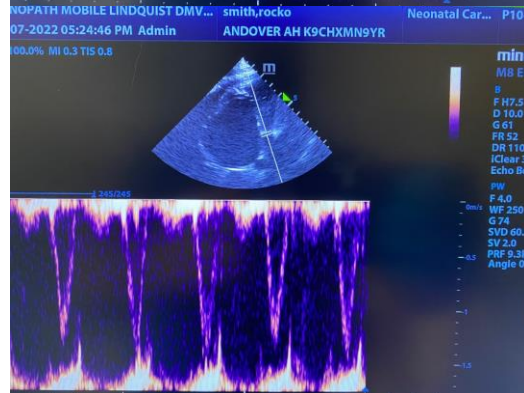
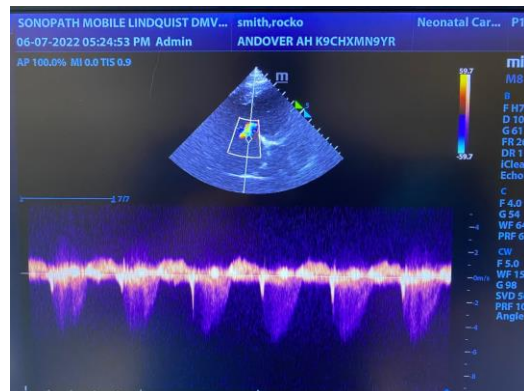
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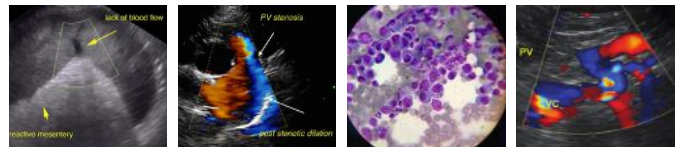
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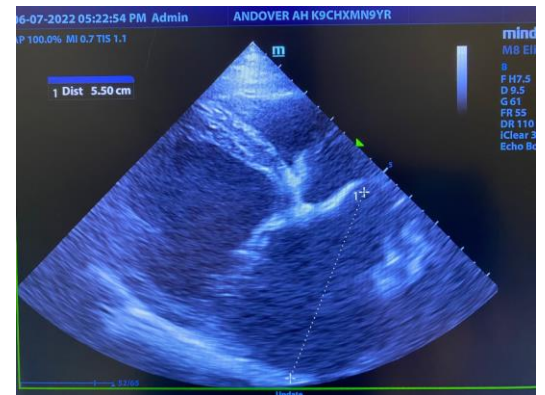
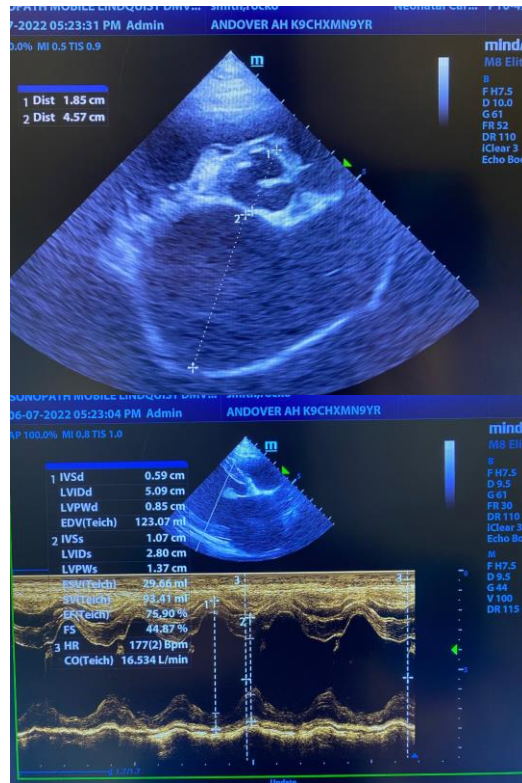
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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