



## PATIENT PRESENTING CLINICAL SIGNS

**PATIENT** Millie Roeske  
**SPECIES** Canine  
**BREED** King Charles Cavalier  
**SEX** Spayed Female  
**AGE** 7 years  
**WEIGHT** 23.6 lbs

Patient with history of hematuria, Abdominal ultrasound reported a mass in the bladder near the apex, consistent with a benign polyp. Cardiac ultrasound recommended by DVM before surgical removal of the mass, since patient has a heart murmur. Blood Pressure Measurements 150/89 (113)  
 Abnormal PE/Chem/CBC/UA Results: Bloodwork done on 01-13-2022 showed thrombocytopenia (60k/uL) and increased MPV (25.1 fL), otherwise WNL.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 different LA measurement methods. Volume overload was noted in the left atrium. Complete filling of left atrium was noted on color flow assessment. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Prolapse of the anterior mitral valve leaflet was noted. Doppler indicated measurable insufficiency. Volume overload was noted in the **left ventricle**. 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. 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

Jenna Walsh, CVT

## HOSPITAL NAME

Santa Clara AH

## REFERRING VET

Dr. Barrett

## DATE

1/19/22

Invoice  
95403

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	6.0	1.6	1.4	1.8		90	0.11
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	122	1.1	0.9	23.6 lbs	2.8	4.41	



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**ULTRASONOGRAPHIC FINDINGS**

Moderate stage B2 valvular disease.

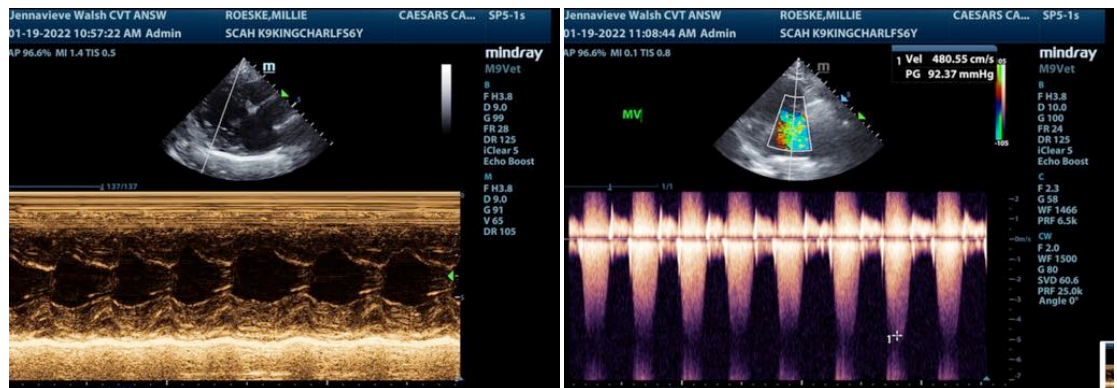
Complete filling of left atrium was noted on color flow assessment.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I am concerned for this patient approaching C1 valvular disease given the prolapse and volume overload in the left atrium and left ventricle. Basal respiratory rate should be monitored and targeted at less than 20/minute.

Given the global presentation in this patient and the borderline hypertension I recommend Pimobendan at 0.3 mg/kg b.i.d., ace inhibitor at 0.5 mg/kg s.i.d. progressing to b.i.d. and Spironolactone at 1-2 mg/kg b.i.d. A recheck echocardiogram is recommended in 10 days.

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. Repeat pre-anesthetic echo is ideal if anesthesia is eventually necessary.



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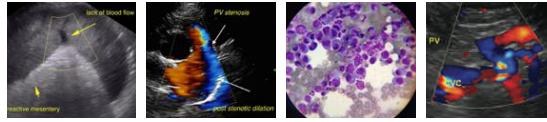
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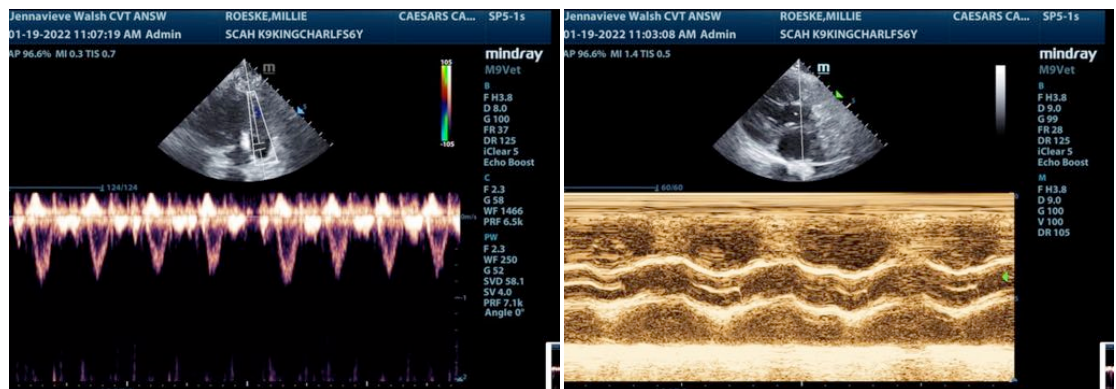
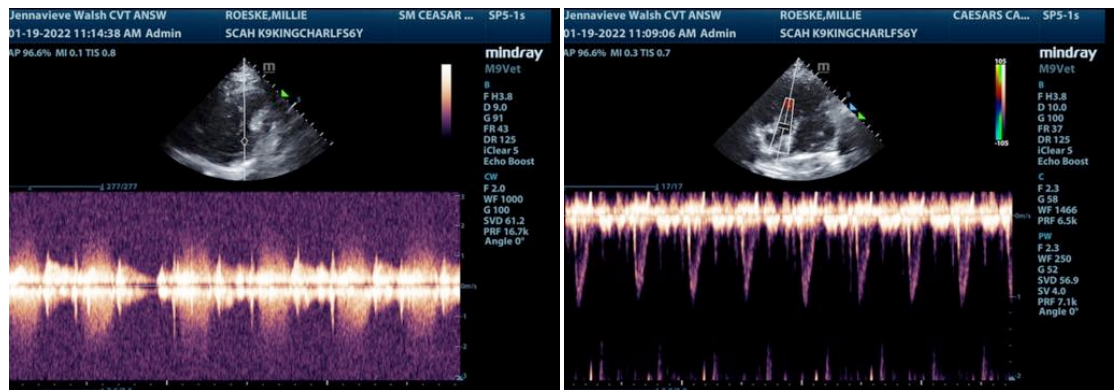
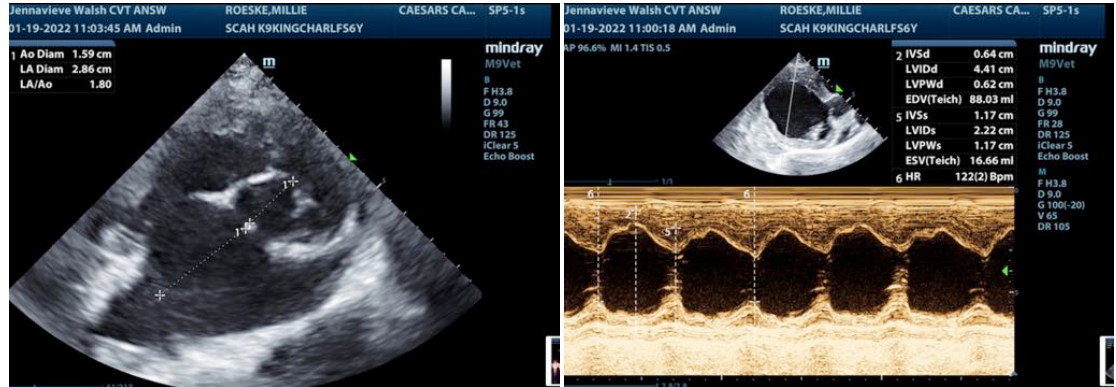
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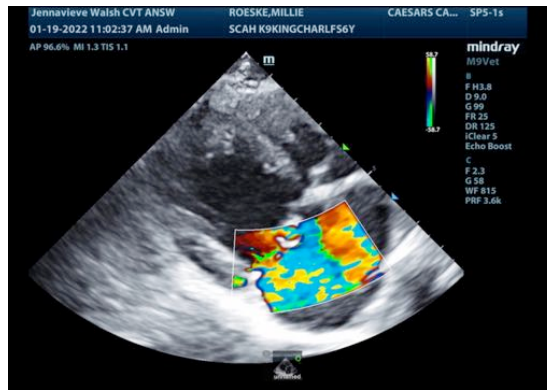
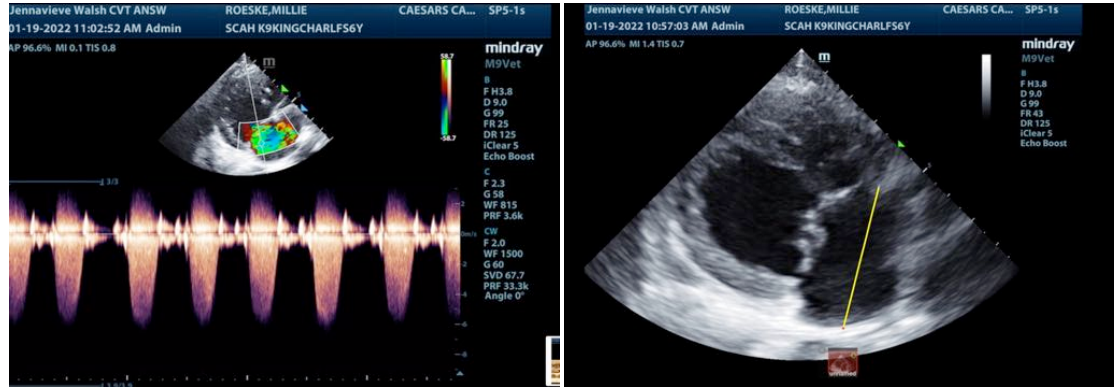
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist, DMV, DABVP, Cert. IVUSS**

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