

## PATIENT

Charlie Mauriello

## SPECIES

Canine

## BREED

Cavalier King Charles

## SEX

MN

## AGE

12 years

## WEIGHT

32 lbs.

## INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

## IMAGING PERFORMED BY

Kelly Vazquez

## HOSPITAL NAME

Ramapo Valley  
Animal Hospital

## REFERRING VET

Dr. Gary Duhr

## INVOICE

16770

## DATE

5/9/23

## PRESENTING CLINICAL SIGNS

Patient presents to stage progression of B2 valvular disease with enlarged left atrium and left ventricle. Current med: Pimobendan 5mgs.

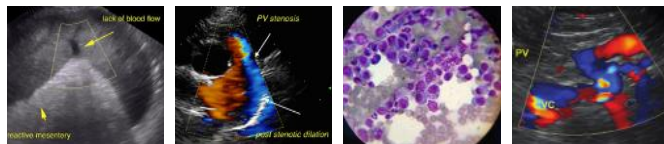
Abnormal PE/Chem/CBC/UA Results: Normal CBC/Superchem on 9/23/22. USG: 1.032.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	5.7	2.8		1.68	42	78	0.3
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	107	1.6	0.9		5.0	4.1	

### Cardiac Presentation

The echocardiogram in this patient demonstrated moderately enlarged **left atrial** size based on 3 different LA measurement methods. Subtle deviation of the interatrial septum towards the right atrium, suggestive of mild increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented moderate thickening consistent with degenerative valvular changes / endocardiosis. Doppler indicated measurable moderate eccentric insufficiency. The **left ventricle** presented thicknesses with linear with mild to subjective static increased LV volume. 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. **Tricuspid** valvular assessment demonstrated mild thickening with mild TR on Doppler. 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.



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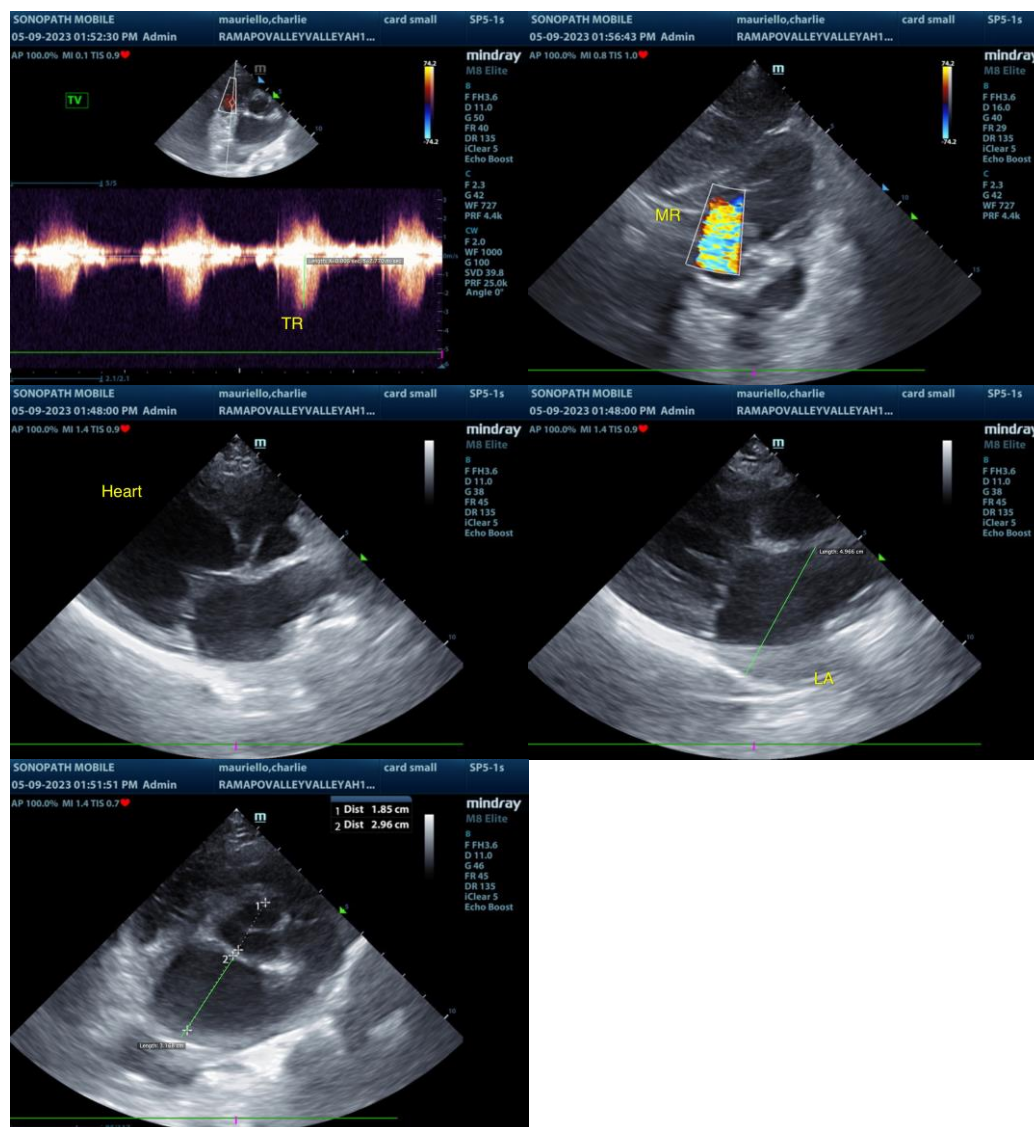
5/9/23

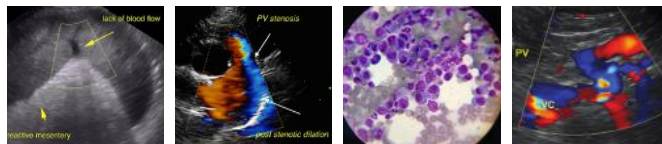
**ULTRASONOGRAPHIC FINDINGS**

- Static to mildly progressive chronic mitral valve disease (ACVIM B2)
- Mild TR - no evidence of clinical pulmonary hypertension

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The echocardiogram reveals static to mildly progressive chronic mitral valve disease based on LA-2D measurement. Given the lack of reported clinical signs, the heart appears to remain stable. However, the prognosis remains highly variable. Continued Pimobendan at the current dose with the addition of Spironolactone 1.0-2.0 mg/kg PO BID, if not currently instituted, is warranted given mildly progressive LA enlargement, as well as Spironolactone effects to reduce potential myocardial fibrosis. Baseline monitoring of resting respiration rate going forward is advised. A recheck echocardiogram is recommended in 6 months, sooner if clinical signs consistent with left-sided congestion arise.





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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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
info@SonoPath.com