



**PATIENT**

Zoey Carney

**PRESENTING CLINICAL SIGNS**

Assess heart murmur grade V/VI, patient going under general anesthesia. Current meds: enalapril, vetmedin, lasix; Cardio ProBNP: pending

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Cavalier King Charles

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

16.32 Pounds

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>	5.0	0.8	1.4	1.4	38	70	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)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
<b>PATIENT</b>	NM	1.2	0.75	7.5	2.4	2.95	1.81

**INTERPRETED BY**

Tam Mengine, DVM, DABVP (canine/feline practice)

**IMAGING PERFORMED BY**

Kelly Vasquez

**HOSPITAL NAME**

Westwood Regional VH

**REFERRING VET**

Dr. Taylor McConnell

**INVOICE**

21481

**DATE**

3/6/23

**Cardiac Presentation**

The **left atrium** is mildly enlarged, with no evidence of smoke or thrombus formation. The **left ventricle** is normal in diameter with normal wall thickness and demonstrates good systolic function. The **right atrium** is subjectively of normal size and **right ventriculi** dimensions and systolic function are subjectively normal. There is severe **mitral valve** regurgitation and mild **tricuspid valve** regurgitation noted, with irregular thickening of the valve leaflets. There is evidence of chordae tendineae rupture and valvular flail of the mitral valve and no vegetative lesions were seen. The **aortic** and **pulmonary valves** both exhibit normal appearance and function. The **main pulmonary artery** appears normal. There is no evidence of pulmonary hypertension. No pericardial/pleural effusion or cardiac masses are seen. There is no evidence of an arrhythmia.

**ULTRASONOGRAPHIC FINDINGS**

Myxomatous mitral valve disease with chordae rupture and flail – Stage B2 vs Compensated Stage C. Myxomatous tricuspid valve disease.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- While there is minimal left atrial enlargement visible on today's ultrasound, this may be due to the patient's diuretic therapy – presumably the use of diuretics is because of a previous history of pulmonary edema. Thus, continuation of the current medication regimen is recommended.
- Daily monitoring of the sleeping respiratory rate at home is recommended, and if the sleeping respiratory exceeds 35 breaths per minute, then a prompt recheck physical examination and chest radiographs to assess for pulmonary edema would be warranted.
- The patient may benefit from a cardiac diet such as Purina's "CardioCare" veterinary diet.



**PATIENT**

Zoey Carney

**SPECIES**

Canine

**BREED**

Cavalier King Charles

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

16.32 Pounds

- Recheck echocardiogram is recommended in 6-8 months. MMVD is a progressive disease, and it is likely that additional medication may be needed in the future.
- Caution is recommended with anesthesia, particularly if this patient was previously in congestive heart failure (and this currently in Stage C MMVD). If the patient does have a history of CHF then elective procedures should be avoided. If anesthesia is necessary, then referral to a facility with an anesthesiologist is desirable. client should be advised of risks, and the following recommendations are suggested:
  - Avoid a-2 agonists such as dexmedetomidine and xylazine.
  - Pre-medication with an opiate and a benzodiazepine is recommended. Additionally, Gabapentin 10mg/kg PO and trazodone 5mg/kg PO given first thing in the morning on the day of the procedure can further reduce inhalant anesthetic requirements.
  - Pre-oxygenation, followed by induction with alfaxalone is recommended, followed by maintenance with isoflurane or sevoflurane. Propofol ideally would be avoided due to the potential for hypotension.
  - When feasible, the use of local anesthetic blocks is recommended to reduce maintenance anesthetic requirements.
  - Modest use of IV fluids throughout the procedure is recommended, with a starting dose of 3-ml/kg/hr, not to exceed 5 ml/kg/hr for the procedure. The minimum volume necessary to maintain adequate blood pressure is desirable. Rather than fluid boluses, a dopamine or dobutamine CRI is recommended to address hypotension if encountered.
  - Use atropine, if necessary, to maintain a HR > 90 throughout the procedure.

**INTERPRETED BY**

Tam Mengine, DVM,  
DABVP (canine/feline  
practice)

**IMAGING PERFORMED BY**

Kelly Vasquez

**HOSPITAL NAME**

Westwood Regional  
VH

**REFERRING VET**

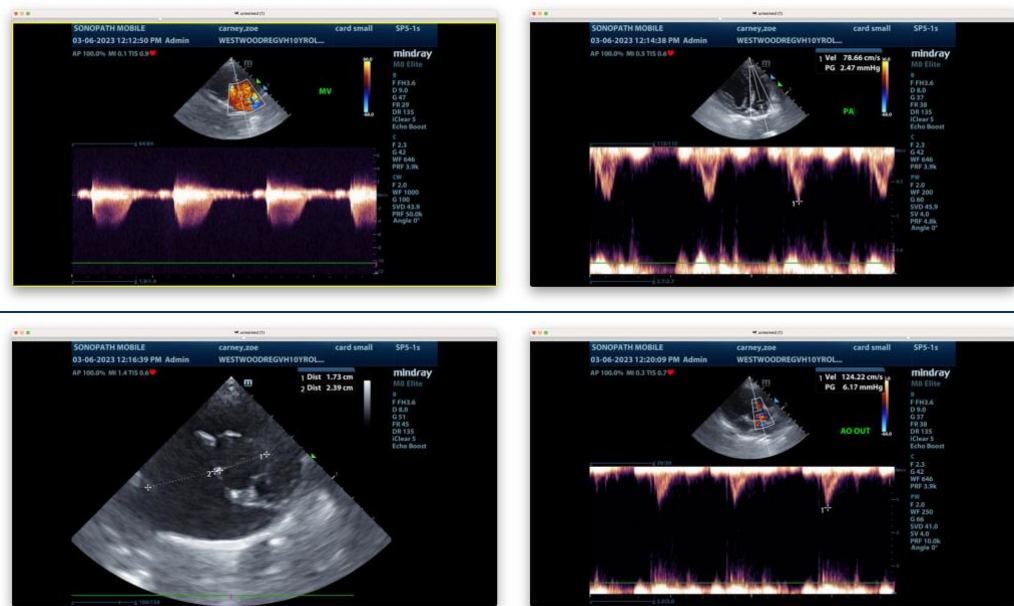
Dr. Taylor McConnell

**INVOICE**

21481

**DATE**

3/6/23





## PATIENT

Zoey Carney

## SPECIES

Canine

## BREED

Cavalier King Charles

## SEX

Spayed Female

## AGE

10 Years

## WEIGHT

16.32 Pounds

## INTERPRETED BY

Tam Mengine, DVM,  
DABVP (canine/feline  
practice)

## IMAGING PERFORMED BY

Kelly Vasquez

## HOSPITAL NAME

Westwood Regional  
VH

## REFERRING VET

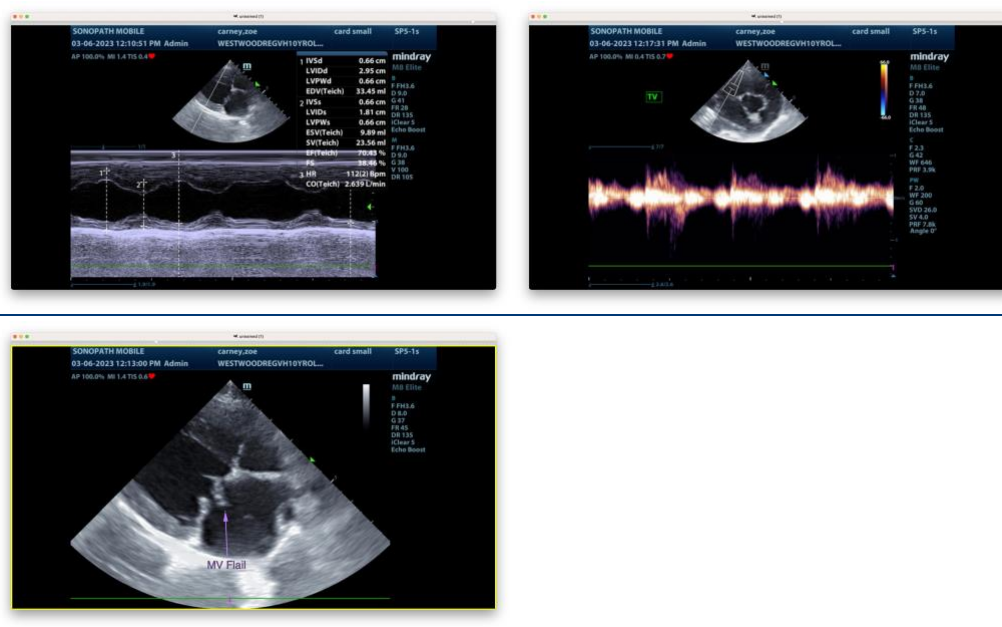
Dr. Taylor McConnell

## INVOICE

21481

## DATE

3/6/23



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.

Tam Mengine, DVM, DABVP (canine/feline practice)

info@SonoPath.com