



## PATIENT

Ginger Leugers

## SPECIES

Canine

## BREED

Bulldog Mix

## SEX

Female Spayed

## AGE

13 years

## WEIGHT

39.2lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

K. Kicker, DVM

## HOSPITAL NAME

Wauwatosa Vet

## REFERRING VET

Dr. Kicker

## INVOICE

28144

## DATE

1/6/23

## PRESENTING CLINICAL SIGNS

History: Suspect syncopal episodes (2) while chasing the ball. No other concerns of heart disease. On exam dog has moderate conjunctivitis. Body score 4/9 Moderate decreased range of motion abaxial skeleton. No murmur or arrhythmia. Heart rate 126. Sedation 0.2mg/ml torb.

**RADIOGRAPHIC FINDINGS** \*NOTE: Images submitted for supplemental cardiac information only. Normal cardiac silhouette. No obvious evidence of CHF.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild mitral valve thickening with no obvious prolapse into the left atrial lumen. Trivial mitral regurgitation; normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears mildly thickened with trace TR. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension or significant right heart disease. The pulmonic and aortic valves are normal in morphology and mobility. Normal LVOT and RVOT velocity. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac tumors seen.

## CARDIAC CHART

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	NM	NM	1.5	1.3	44	76	0.5
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	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.6	0.7	17.8	2.7	3.4	1.8
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac structure and function. Trivial MR and TR are identified, which may reflect early valve disease or may simply be physiologic in origin. Follow up is advised should a murmur be ausculted in the future. The overall cardiac structure is normal with adequate systolic function.

Syncope may be caused by a variety of underlying conditions. The first important delineation is cardiogenic syncope versus seizure, with the hallmark of syncope being of short duration and normal mentation immediately prior to and following the episode. Possible causes for cardiogenic



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syncope include vaso-vagal events, brady or tachyarrhythmias, or another underlying disease causing poor cardiac output (like dilated cardiomyopathy). Because it can be difficult to differentiate between syncope and seizures, the episodes may also be due to underlying neurological causes.

## SPECIES

Canine

Today we were able to rule out several potential causes for the episodes. The echocardiogram ruled out significant structural problems with the heart and along with a normal activity level and physical examination, underlying structural disease is very unlikely. Additionally, no obvious cardiac neoplasia or effusions were seen in this study. Despite a normal structure and function however, occasional bouts of increased or decreased heart rate are possible and may cause a syncopal episode (ECG not submitted). A baseline ECG and/or holter monitor can be considered if no additional cause is identified.

## BREED

Bulldog Mix

## SEX

Female Spayed

No cardiac medications are indicated. Monitor at home for any further episodes, cough/labored breathing and/or exercise intolerance.

## AGE

13 years

No cardiac contraindication for general anesthesia based upon these findings.

## WEIGHT

39.2lbs

## PLAN

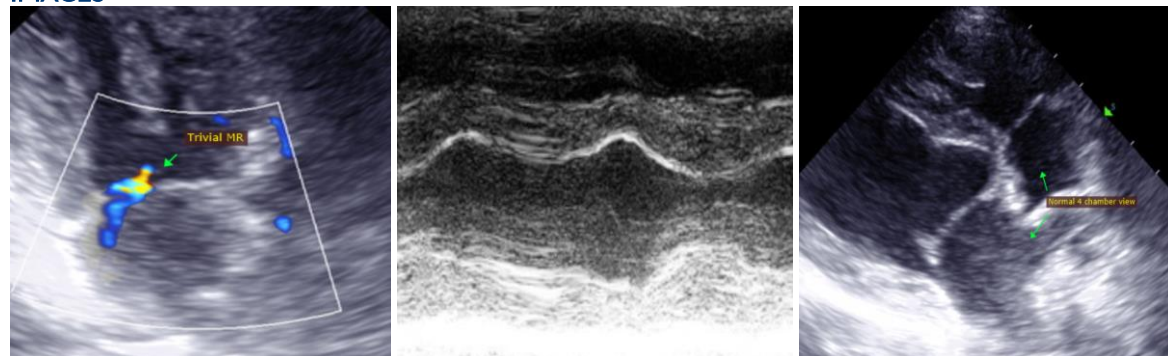
Consider further systemic evaluation as discussed. Consider an ECG and/or holter monitor as discussed.

Recheck echocardiogram is recommended if a murmur or clinical signs of cardiac compromise are noted in the future.

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## IMAGES



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Dr. Kicker

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.

## INVOICE

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Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

## DATE

1/6/23

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