


PATIENT PRESENTING CLINICAL SIGNS

June Fennell History: Fever and non-specific malaise noted prior to spay, along with a new murmur. Family had COVID from Dec 2021 onward. Reassessed body temperature since was normal.

SPECIES ECHOCARDIOGRAM FINDINGS

Canine 2D, m-mode, color flow and doppler imaging is available. Minimal diffuse thickening of mitral valve leaflets with no obvious prolapse into the left atrial lumen. Trace mitral regurgitation is identified. Normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears subjectively normal, with trace tricuspid regurgitation. The right heart is normal (subjective). No overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. No aortic abnormalities identified, however the LVOT velocity is mildly elevated. Mildly elevated pulmonic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

BREED

Shepherd Mix

SEX

Female Spayed

AGE

2 years

WEIGHT

63lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Kelly Reschny, RVT

HOSPITAL NAME

 Maples Animal
 Hospital

REFERRING VET

Dr. Kazienko

INVOICE

24504

DATE

6/1/22

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	1.3	1.3	58	89	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	BELOW	BELOW	BELOW	BELOW
PATIENT	200	2.2	2.1	28.6	2.6	3.0	1.2
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				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

The only cause of a murmur identified is increased flow velocity through both great vessels. No obvious subaortic ridge or valvular abnormalities are visualized, and in the absence of structural issues this is considered a benign flow murmur. Given that this is a new murmur coinciding with onset of a fever, volume and/or heart rate changes are the likely cause. Consider reassessing lab work, given the persistent abnormalities. Trace MR and TR are likely of little hemodynamic significance; however, follow up is advised. No additional issues are identified.



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No obvious evidence of myocarditis or endocarditis is observed in this study. If there is concern regarding possible infectious disease in this patient, highly recommend contacting the FDA for further testing information. A troponin level could be considered to screen for subclinical myocarditis; however, suspicion is low in this case without LV dilation or dysfunction.

No cardiac medications are indicated. No cardiac contraindication for general anesthesia.

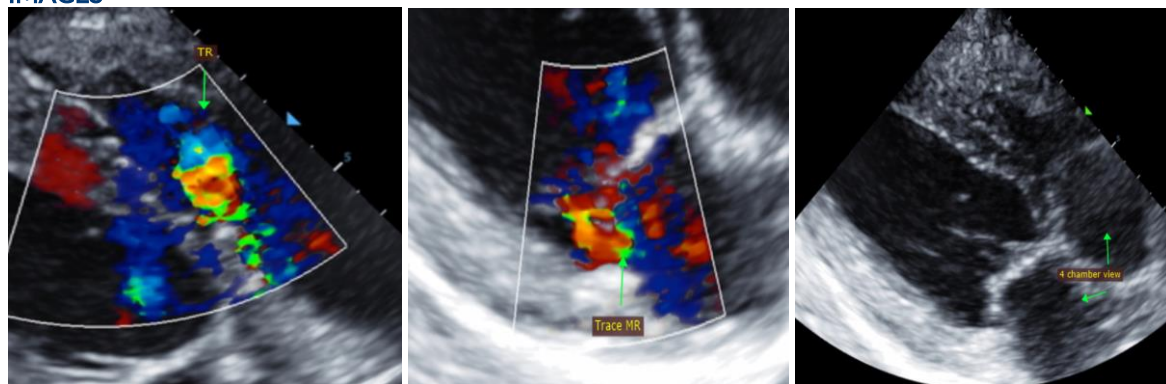
Monitor for any development of cough, labored breathing or exercise intolerance.

PLAN

Consider repeat baseline lab work as discussed. Contact FDA if indicated. Consider a cardiac troponin (cTnI) level.

Recommend recheck echocardiogram in 12-18 months, assuming the murmur persists.

IMAGES



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. 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.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com