



PATIENT

Mac Lathrop

SPECIES

Canine

BREED

American Bulldog

SEX

Male Neutered

AGE

2.7 years

WEIGHT

72lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Amanda Crook, SDEP

HOSPITAL NAME

River Edge Pet Medical
Center

REFERRING VET

Dr. Todd

INVOICE

45949

DATE

12/1/25

PRESENTING CLINICAL SIGNS

History: Presented for mass removal on 11/28. No murmur heard at time of preanesthetic exam; however, was growling under anesthesia (premedication with Buprenorphine and Acepromazine and induction with Midazolam and propofol) and left basilar continuous murmur was auscultated, grade 2-3/6. Today, grade 2/6 left continuous murmur was auscultated. Sedated Gabapentin and Trazodone.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 50mm/s; 5mm/mV. The average heart rate is 120bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is positive with normal dimension. MEA is normal. No ectopic beats, pauses or dysrhythmias observed. ECG diagnosis: Normal sinus rhythm with respiratory variation.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild thickening of the mitral valve leaflets with no obvious prolapse into the left atrial lumen. No mitral regurgitation is identified. Normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears subjectively normal, with no significant 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. Normal pulmonic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

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 | NA | NA | 1.3 | 1.3 | 27 | 50 | 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 | NM | 2.1 | 1.1 | 32.7 | 3.1 | 4.1 | 3.0 |
| *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) |
| *Note: All measurements based upon multi-modal images and methods. An average value is reported. | | | | 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 dimensions and function. The only cause of a murmur identified is increased flow velocity through the LVOT/aortic root. No obvious subaortic narrowing or valvular abnormalities are visualized, and in the absence of structural issues this is considered a



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benign flow murmur. If the murmur persists or progresses, it is reasonable to monitor periodically via recheck echocardiography in the future. Additionally screening for fluid status abnormalities (dehydration, anemia, etc.) is recommended through routine lab work as volume changes can make this finding more prevalent. No significant valvular insufficiencies were noted and no structural issues identified. The ECG is unremarkable with a respiratory sinus arrhythmia.

A continuous murmur is mentioned in the history, which is not explained by these findings. While there are no obvious shunts visualized such as a PDA, this particular auscultatory finding does raise some concern. If this is a consistent confirmed finding, consider a referral for advanced imaging in this case.

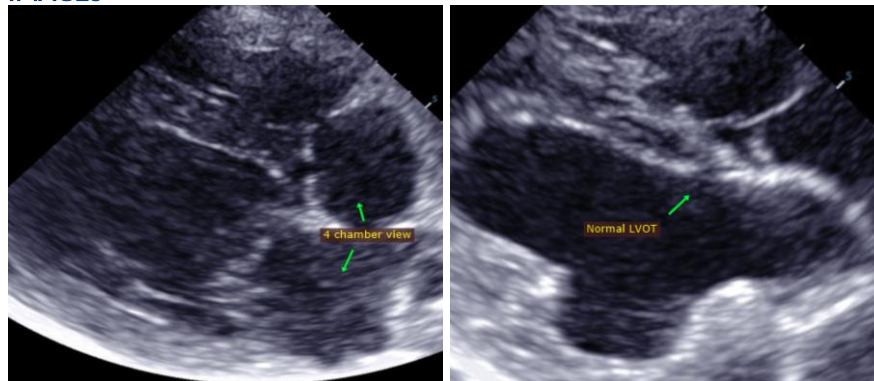
No cardiac medications are indicated. Prognosis is open.

No cardiac contraindication for general anesthesia.

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

Recommend recheck echocardiogram in 12-18 months to screen for development of concurrent cardiac disease that the preexisting murmur may mask.

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
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