


**PATIENT**

McGuffy Martin

**PRESENTING CLINICAL SIGNS**

History of low grade left side apical murmur. No clinical signs. Echo is pre-operative prior to dental

Abnormal PE/Chem/CBC/UA Results: none reported

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**
**BREED**

Terrier Mix

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				1.33	43	78	0.15
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	NM	1.6	1.1		2.0	2.1	

14.6lb

**SEX**

MN

**AGE**

9yr

**WEIGHT**
**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal left atrial size based on 3 separate methods of LA evaluation. The cranial and caudal mitral valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. No overt significant MR on Doppler. The left ventricle presented thicknesses with linear contour and was not dilated nor restricted. 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. Normal measured LVOT velocity. The right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated adequate linear morphology and kinesis. No overt TR on Doppler. The right ventricle was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Normal measured RVOT velocity. No visible pericardial or free pleural fluid was noted. The cranial mediastinum and pericardial and extra-cardiac regions were free of masses in the visible window. No evidence of arrhythmia.

**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of structural or functional cardiomyopathy. No evidence of clinical issues such as left or right heart chamber enlargement, LV systolic dysfunction or clinical pulmonary hypertension. The cause of the murmur is suspected to indicate mild non-obvious mitral valve insufficiency based on

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Meredith Swart

**HOSPITAL NAME**

 Swart Veterinary  
 Imaging

**REFERRING VET**

Meredith Swart

**INVOICE**

13148ag

**DATE**

03/13/2023



**PATIENT**

McGuffy Martin

murmur description and location. A benign physiologic flow murmur or small flow abnormality is also a potential.

**SPECIES**

Canine

Regardless, the lack of left or right heart chamber enlargement indicate that the hemodynamic effects of the murmur are minimal. No indication for cardiac medications or anesthetic contraindications. Continued conservative monitoring of the murmur is recommended. Recheck echocardiogram recommended in 12 months, sooner if murmur intensity increases or clinical signs suggestive of heart disease arise.

**BREED**

Terrier Mix

**SEX**

MN

**AGE**

9yr

**WEIGHT**

14.6lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Meredith Swart

**HOSPITAL NAME**

Swart Veterinary  
Imaging

**REFERRING VET**

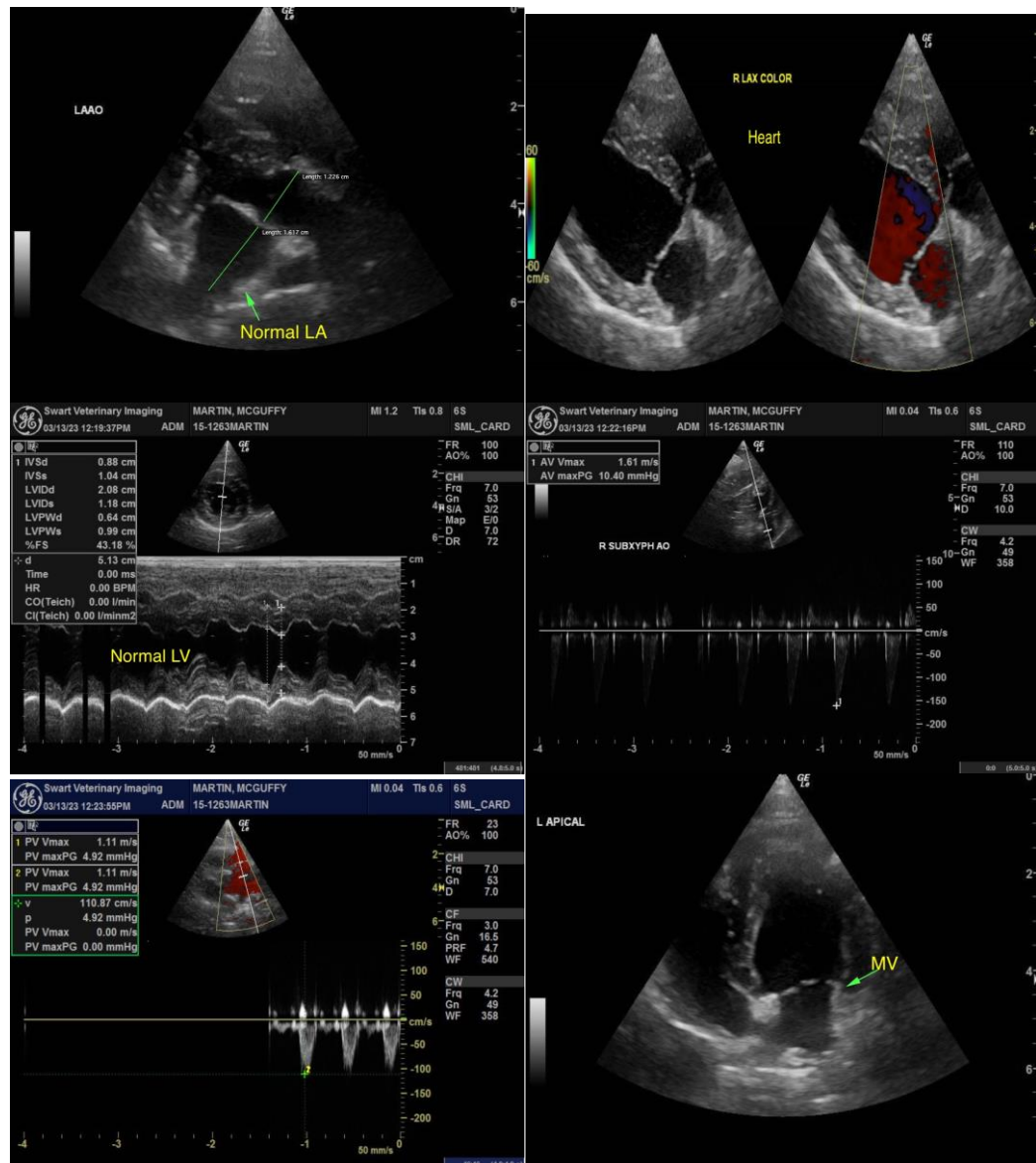
Meredith Swart

**INVOICE**

13148ag

**DATE**

03/13/2023





**PATIENT**

McGuffey Martin

**SPECIES**

Canine

**BREED**

Terrier Mix

**SEX**

MN

**AGE**

9yr

**WEIGHT**

14.6lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Meredith Swart

**HOSPITAL NAME**

Swart Veterinary Imaging

**REFERRING VET**

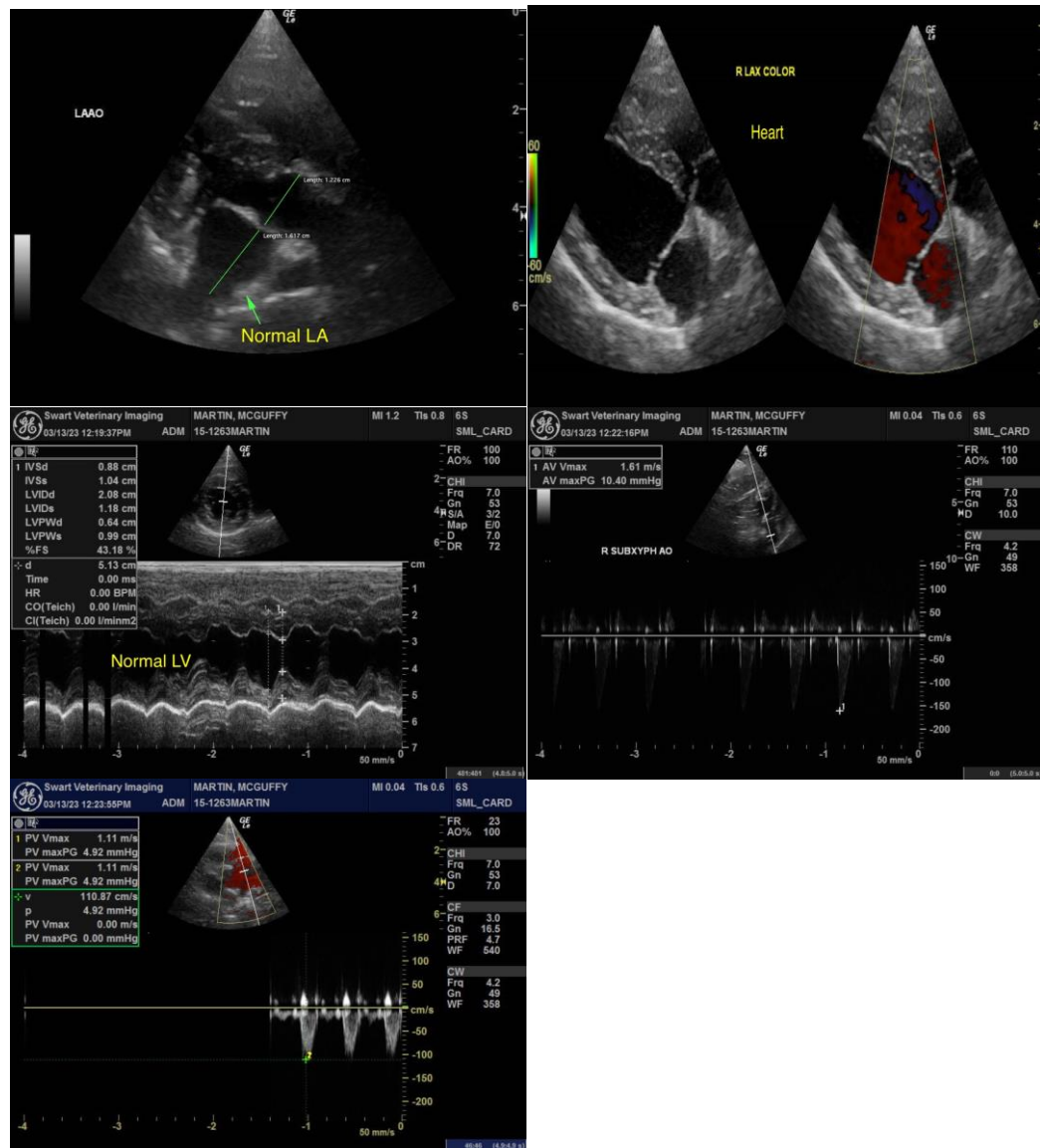
Meredith Swart

**INVOICE**

13148ag

**DATE**

03/13/2023



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)  
[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)