



## PATIENT

TK Santos

## SPECIES

Canine

## BREED

Pit Bull Mix

## SEX

Male Neutered

## AGE

~11 yo

## WEIGHT

75 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Meredith Swart

## HOSPITAL NAME

Swart Veterinary  
Imaging

## REFERRING VET

Dr. Meredith Swart

## INVOICE

15582

## DATE

12/2/22

## PRESENTING CLINICAL SIGNS

Low grade left side murmur auscultated. Patient not clinical. Echo was initially pre-operative prior to a dental. A large, multi-lobed cystic liver lesion was seen during echo, so now echo may be pre-operative prior to abdominal surgery.

Abnormal PE/Chem/CBC/UA Results: sending out lab work today.

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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				1.55	43	78	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)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	NM	1.1			4.3	4.3	

## 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. Subjective mild MR was present on Doppler. The **left ventricle** presented normal 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. 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. 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). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.



**PATIENT**

TK Santos

**SPECIES**

Canine

**BREED**

Pit Bull Mix

**SEX**

Male Neutered

**AGE**

~11 yo

**WEIGHT**

75 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Meredith Swart

**HOSPITAL NAME**

Swart Veterinary  
Imaging

**REFERRING VET**

Dr. Meredith Swart

**INVOICE**

15582

**DATE**

12/2/22

**ULTRASONOGRAPHIC FINDINGS**

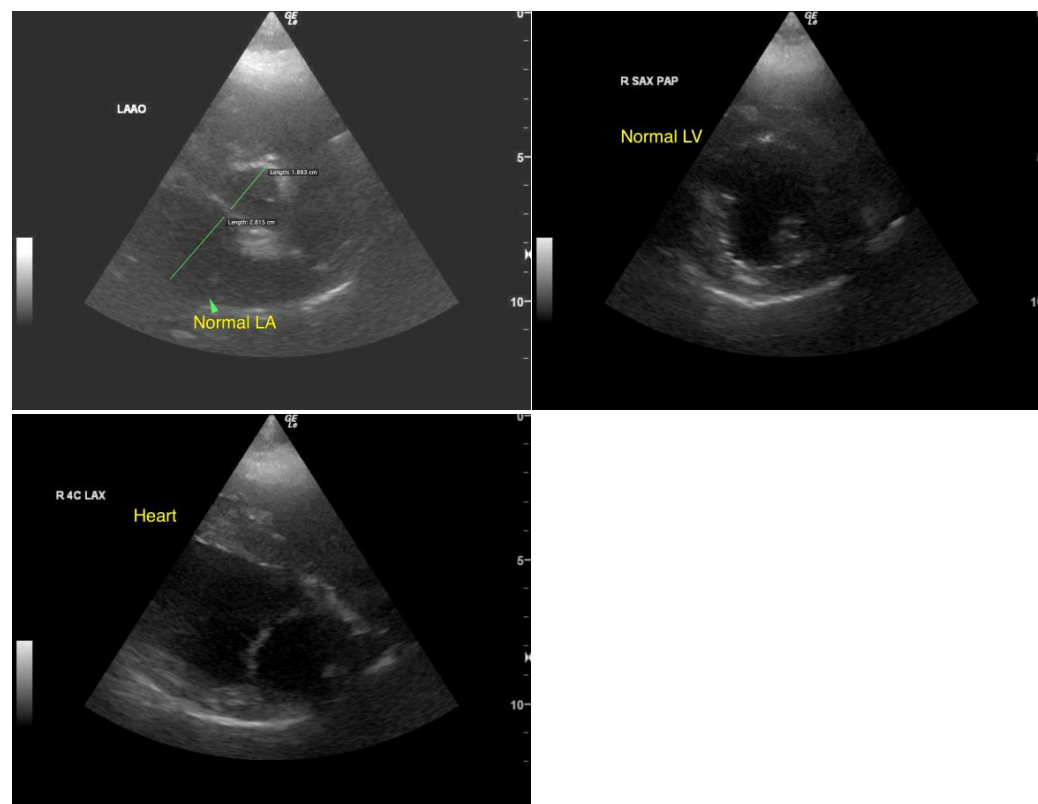
- Overt normal cardiac structure and function
- Subjective mild MR

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of structural or functional cardiomyopathy was noted. The low-grade murmur is suspected to be secondary to mild MR without evidence of additional overt valvular insufficiencies, stenotic disease, LV systolic dysfunction, or evidence of clinical pulmonary hypertension. The hemodynamic effects of the probable mild MR appear to be minimal without evidence of left or right heart chamber enlargement. No indication for cardiac medications. No anesthetic contraindications.

Conservative monitoring of the murmur at this stage would be appropriate. Recheck echocardiogram is recommended in 6-12 months, sooner if murmur intensity increases or if clinical signs arise.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.



**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.**



**PATIENT**

TK Santos

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.

**SPECIES**

Canine

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**

**BREED**

Pit Bull Mix

**SEX**

Male Neutered

**AGE**

~11 yo

**WEIGHT**

75 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Dr. Meredith Swart

**HOSPITAL NAME**

Swart Veterinary  
Imaging

**REFERRING VET**

Dr. Meredith Swart

**INVOICE**

15582

**DATE**

12/2/22