



PATIENT PRESENTING CLINICAL SIGNS

Melvin Lokietek

SPECIES

Canine

History: 1 mo history of increased respiratory effort. Resp pattern is expiratory with an abdominal push/component. Patient does also have a heart murmur. No clinical signs associated with heart disease. No coughing reported by owner. No evidence of pulmonary edema on radiographs. Patient currently being treated for airway disease with cerenia, theophylline and cough tabs. Patient may be evaluated soon for possible brachycephalic surgery so echo is pre-operative

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

BREED ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Pug

SEX

Neutered Male

AGE

12 Years

WEIGHT

25 Pounds

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	--	--	NM	1.4	54	86	0.12
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	--	1.3	0.76	--	3.0	3.0	--

INTERPRETED BY

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

IMAGING PERFORMED BY

Meredith Swart

HOSPITAL NAME

Swart Veterinary
Imaging

REFERRING VET

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INVOICE

21339

DATE

2/28/23

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented mild thickening consistent with mild endocardiosis. No evidence of valvular prolapse. Doppler indicated mild eccentric insufficiency. 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. Mild TR was present on doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** 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. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.



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ULTRASONOGRAPHIC FINDINGS

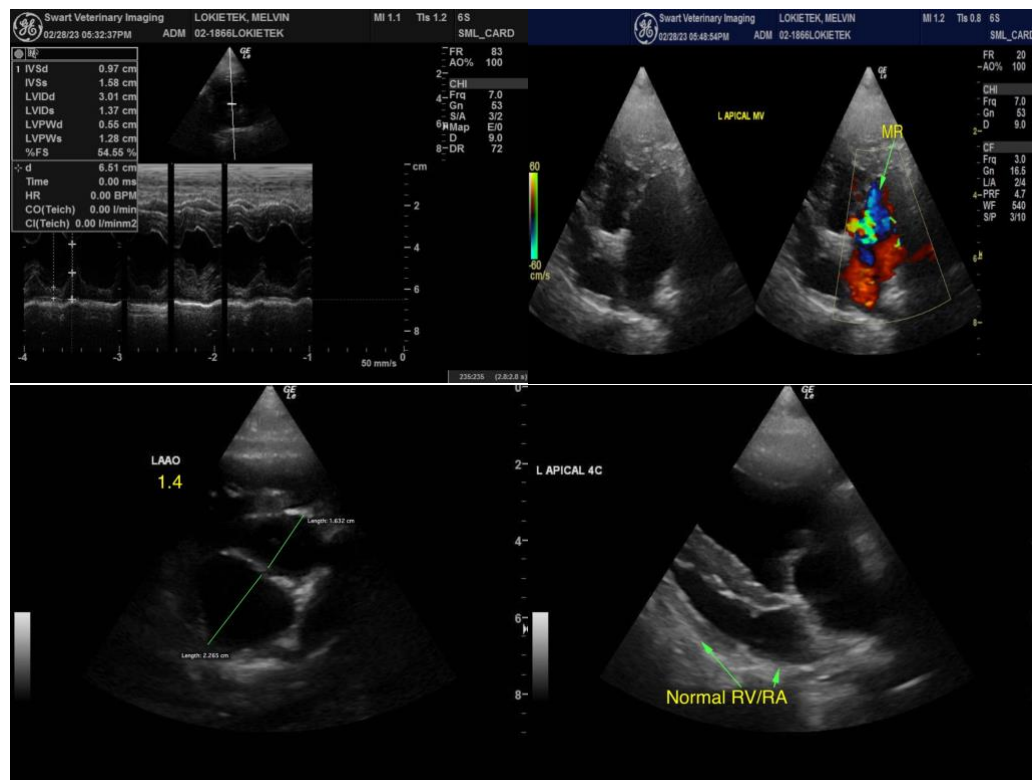
- Chronic mitral valve disease (ACVIM B-1)
- Mild TR with normal RA/RV size – no evidence of clinical pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of left atrium enlargement indicates that the current and future risk of complication secondary to MR is low. Without evidence of left or right chamber enlargement, LV systolic dysfunction or evidence of clinical pulmonary hypertension, the increased respiratory effort in this patient is noncardiogenic in origin. Consideration for primary lower airway disease or possible increased body condition may be considered. NO anesthetic contraindications or indication for cardiac medications. Prognosis for the MR may be considered variable. Sonographic monitoring is recommended with initial recheck echocardiogram suggested in 8-12 months or sooner if clinical signs consistent with heart disease 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.

<https://www.antechdiagnostics.com/cadet-braf>



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. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.



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