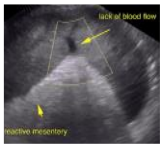
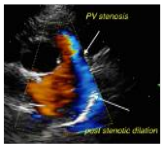
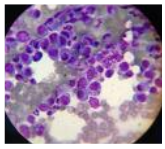
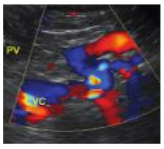
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Molly Caraway

SPECIES

Canine

BREED

Jack Russell Mix

SEX

Female Spayed

AGE

~10 yrs.

WEIGHT

5.5 kg

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

14771

DATE

8/31/22

PRESENTING CLINICAL SIGNS

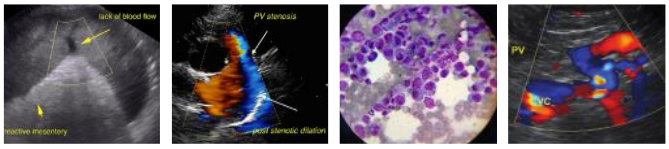
-Patient presents as referral for dental surgery so echo today is pre-operative . History of murmur. Unsure whether patient is clinical at the moment. Patient is currently on vetmedin 1.25 mg tabs 1 tab BID, enalapril 2.5 mg 1.25 tabs Q24, and lasix 12.5 mg 1 tab BID. Unsure whether p had an echo previous to starting cardiac medications.
Abnormal PE/Chem/CBC/UA Results: none reported

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				1.42	45.8	80.7	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	1.2	0.81		2.4	2.4	

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 vegetative thickening consistent with endocardiosis. Potential for mild septal leaflet prolapse is noted. Doppler indicated 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. 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



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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.

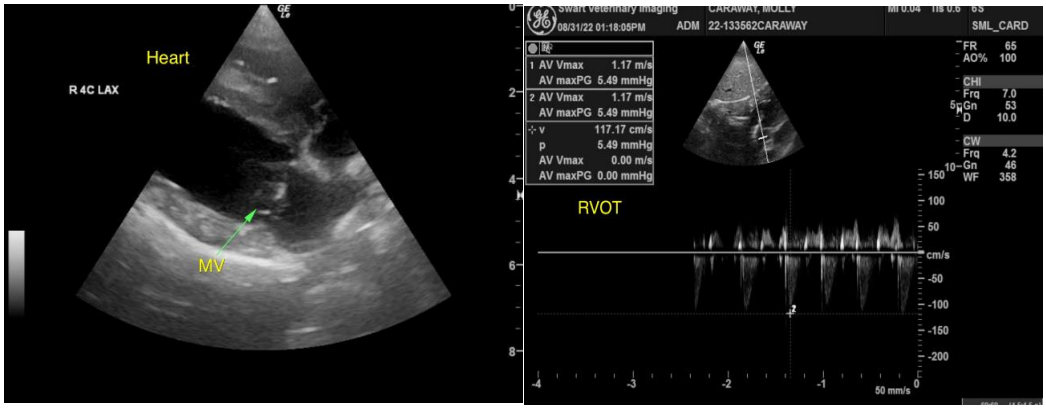
ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B1)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram is most consistent with chronic degenerative valvular changes with secondary mitral valve insufficiency as a cause of the murmur. No other overt or additional clinical Issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension. The lack of left atrium enlargement indicates that the relative risk of mitral valve insufficiency is low, yet prognosis is highly variable. Assuming the patient Is nonclinical, the lack of left or right heart chamber enlargement does not overtly Indicate the need for cardiac medications at this stage. Arguably, the use of Vetmedin may help prolong cardiac changes associated with mitral valve Insufficiency, yet given the lack of left or right heart chamber enlargement without evidence of congestive criteria, diuretic therapy is not obviously indicated. ACE inhibitor therapy would only be recommended if systemic BP >130, (not advised if <130). Serial sonographic monitoring is required for further prognosis. Recheck echocardiogram is recommended in 6 months, sooner if clinical signs arise. No overt anesthetic contraindications are evident, given this presentation. The following anesthetic protocol may be considered.

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.



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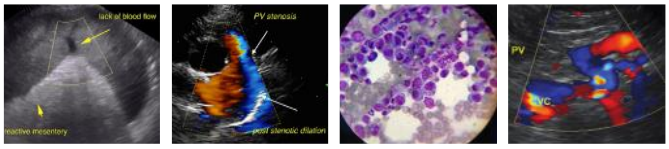

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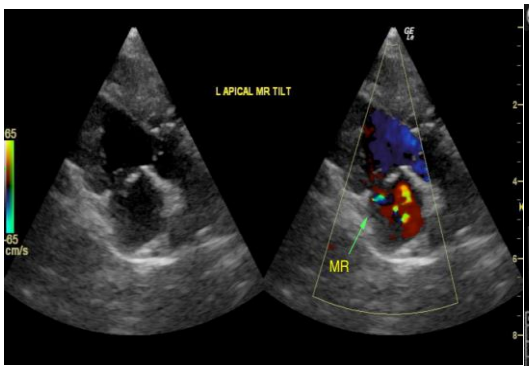

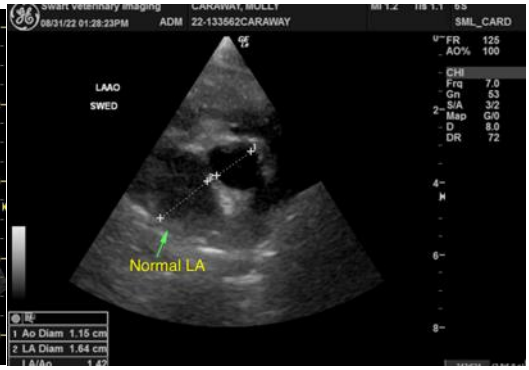

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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