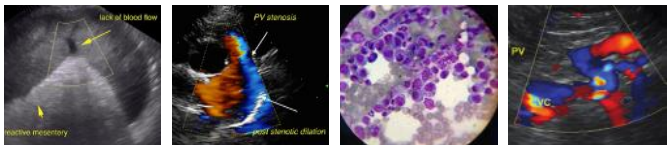
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Charlie Montijo

SPECIES

Canine

BREED

Maltese

SEX

MN

AGE

12

WEIGHT

5.9lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Eliana Petrone

HOSPITAL NAME

Long Branch Animal Hospital

REFERRING VET

Eliana Petrone

INVOICE

11129ag

DATE

07/12/2022

PRESENTING CLINICAL SIGNS

History: New heart murmur heard on PE, severe dental disease-echo prior

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				1.36	60	94	0.1
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	1.0	

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 minor systolic anterior motion (SAM) of the mitral valve was present. Doppler indicated mild eccentric insufficiency. The left ventricle presented subjective increased thicknesses with maintained linear contour. Mildly prominent papillary muscles were present. The myocardium presented mild increased echogenicity which may indicate some degree of LV fibrosis. 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 subjective normal laminar flow with potential for mild turbulent to dynamic systolic outflow 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 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

- Prominent to mildly thickened LV
- Normal LA
- Mild eccentric MR

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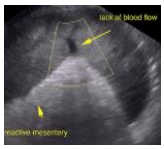
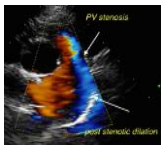
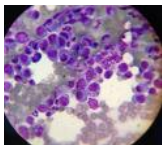
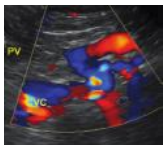

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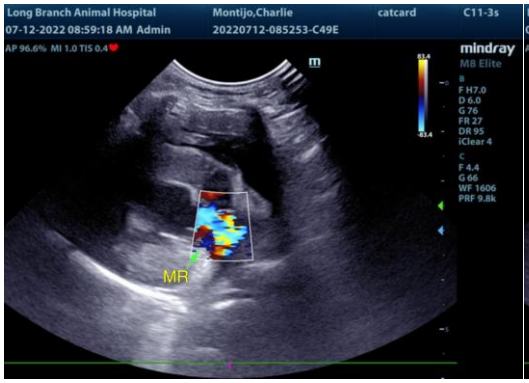
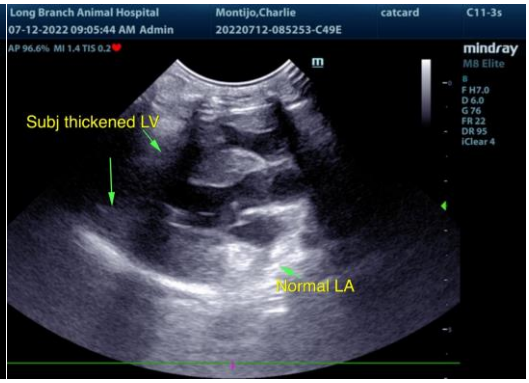
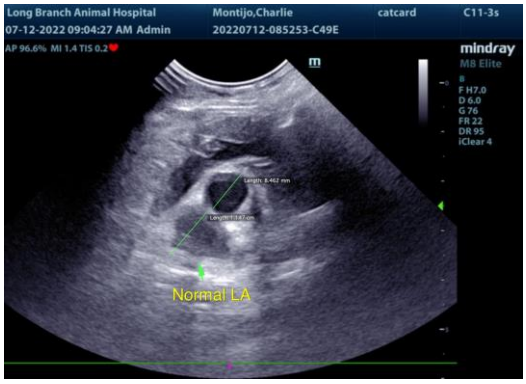
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall this study is consistent with chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency as the most likely cause of the murmur. Potential causes of LV hypertrophy may include dehydration (pseudo hypertrophy), systemic hypertension, infiltrative disease such as lymphoma (considered unlikely) or potentially a primary HCM similar to a cat. If the murmur has been chronic for life some degree of mitral valve dysplasia cannot be definitively excluded yet is thought unlikely given the newly noted heart murmur. Screening blood work and BP is advised to assess for and rule out complicating factors. If BP and labs are unremarkable consider systemic screening for potential infiltrative disease. Overall the heart appears to be compensated given the lack of LA enlargement. No overt indication for cardiac medications. Anesthetic risk is considered minimal assuming normal labs and systemic BP. Conservative monitoring of the murmur is warranted at this stage. A recheck echocardiogram is suggested in 6 months, sooner if clinical signs consistent with heart disease arise or if murmur intensity increases.







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)

info@SonoPath.com