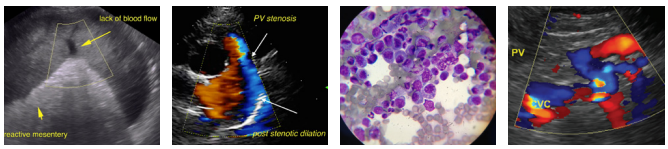
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Opie Belville

SPECIES
Canine

BREED
Boston Terrier

SEX
Neutered Male

AGE
7 Years

WEIGHT
17.8 Pounds

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

IMAGING PERFORMED BY
Holly Burleson, LVT

HOSPITAL NAME
All Pets Medical

REFERRING VET
Dr. Agnes Rupley

INVOICE
35809

DATE
3/1/22

PRESENTING CLINICAL SIGNS

Opie has a history of Stage B1 mitral valve disease -- Grade V/VI heart murmur - due to Chronic Valvular Disease (CVD) with no heart enlargement. His murmur today is a grade V/VI holosystolic left apical murmur. Last echocardiogram and thoracic radiographs were 9/10/18. Echocardiogram and chest x-rays were performed today. No symptoms of heart failure reported. Opie is currently being fed a grain free diet.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

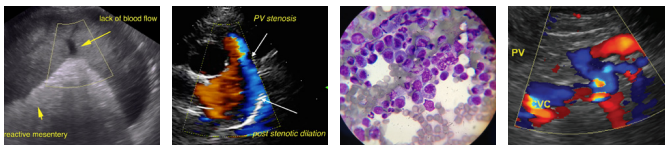
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	5.5	1.2	NM	1.53	39.7	73.6	0.22
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (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	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.0	1.0		2.2	3.1	

Cardiac Presentation

The echocardiogram for this patient presented mildly excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable primarily eccentric insufficiency. No evidence of chordae tendineae rupture or mitral valve prolapse. 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 mild thickening with septal leaflet prolapse. Mild TR. 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

- Chronic mitral valve disease (ACVIM early B2), mild LA enlargement



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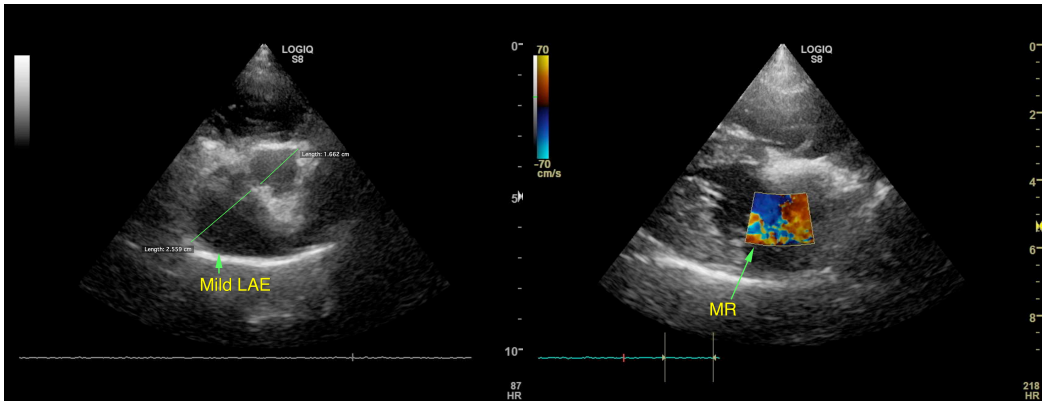
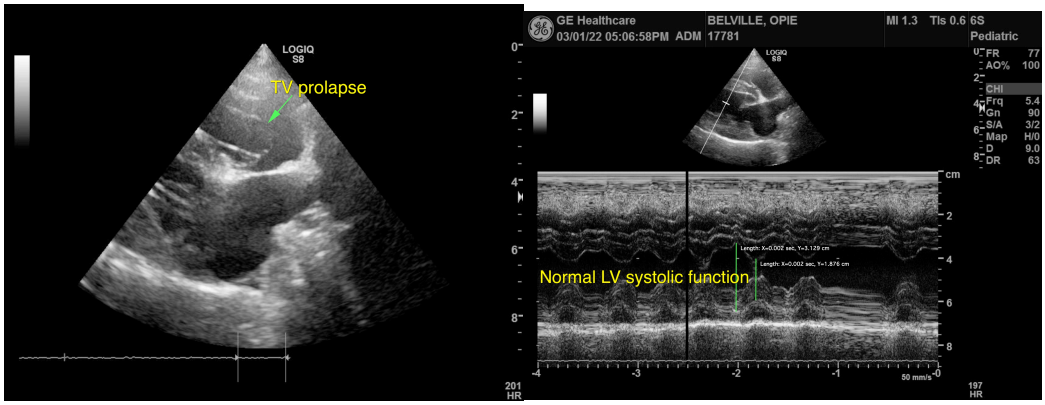
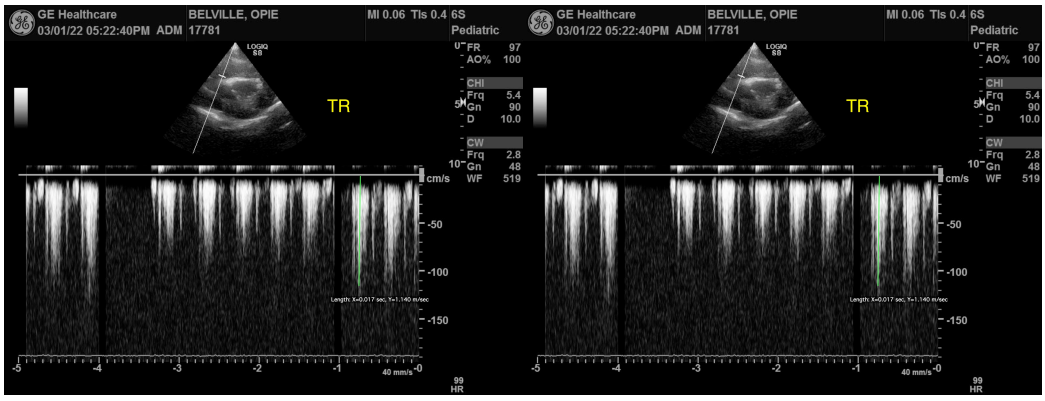
- Mild TR with TV prolapse – estimated pulmonary pressure gradient based on measured TR velocity not consistent with overt clinical pulmonary hypertension.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, the heart appears to be stable with mild LA enlargement noted. The mild LA enlargement indicates that the risk of future complication is mildly elevated, yet prognosis at this stage is highly variable. Given lack of significant LA enlargement or overall left chamber enlargement as well as lack of additional issues such as systolic dysfunction or evidence of clinical pulmonary hypertension, cardiac medications are not overtly indicated. Conservative monitoring at this stage would be appropriate. However, given the high murmur intensity, serial sonographic monitoring is recommended for further prognosis. Recheck echocardiogram suggested in 6 months, sooner if clinical signs arise. No overt evidence of nutritional cardiomyopathy. However, switching to a traditional diet would be ideal.







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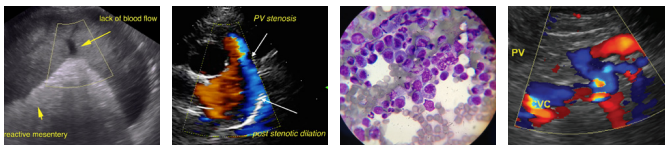

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@SonoPath.com