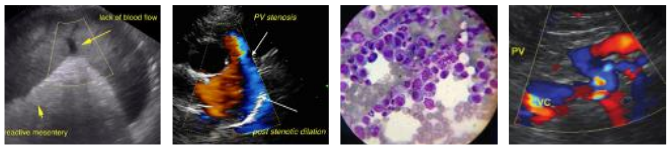
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Maverick Simpson

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

2 Years

WEIGHT

11.1 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany VH

REFERRING VET

Dr. Cordero

INVOICE

37892

DATE

5/23/22

PRESENTING CLINICAL SIGNS

New Grade 3-4/6 murmur, needs surgery for abscess on back. Current meds: Clavamox
Abnormal PE/Chem/CBC/UA Results: pending

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		209	0.6	1.46	0.6	48.6	83.6
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE** (Sisson)	**LA** 2D 4-chamber long axis AS to FW (Sisson) (cm)		**LVOT VEL.** (m/s)	**RVOT VEL.** (m/s)	**IVRT** (m/)
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.3	1.38	1.3		1.3	1.1	NM

Adapted from June Boon,Veterinary Echocardiography,1998
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. No evidence of spontaneous contrast or "smoke". The cranial and caudal **mitral** valve leaflets presented subtle thickening with subjective mild systolic anterior motion (SAM) of the mitral valve. Mild eccentric MR present on doppler. The **left ventricle** presented borderline increased thicknesses with overall maintained 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 and angles of the myocardium. The **left ventricular outflow** tract demonstrated mild subjective turbulent to dynamic systolic outflow, yet normal 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 and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed overall normal valve structure, subjective laminar systolic flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

- Systolic anterior motion (SAM) of the mitral valve, secondary eccentric MR.
- Borderline prominent to thickened IVS and LV free wall.
- Normal left atrium
- Normal measured LVOT – no evidence of significant dynamic obstruction.

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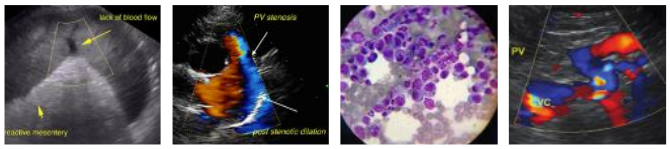

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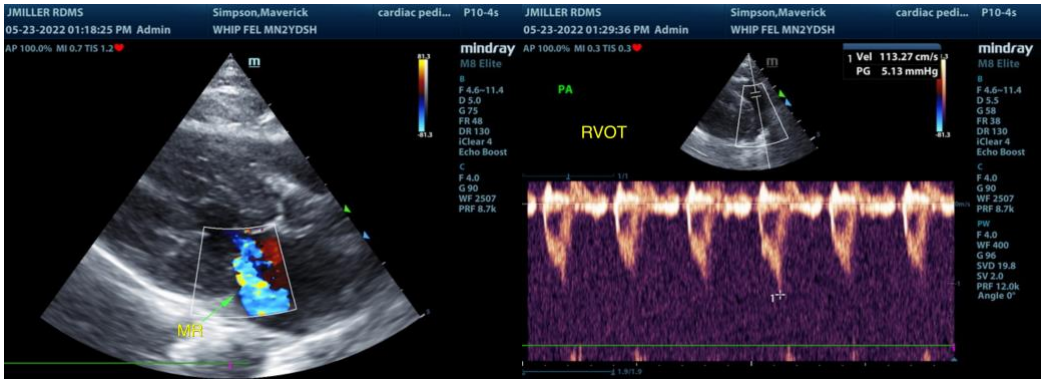
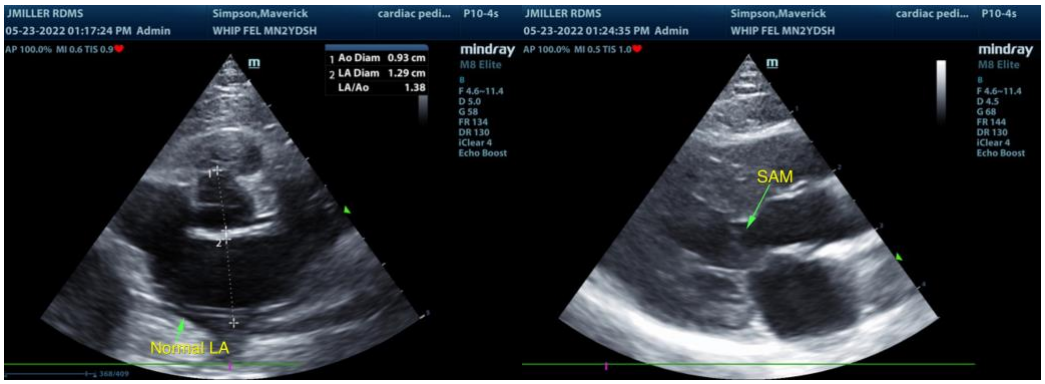
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur in this patient is most consistent with dynamic LVOT obstruction secondary to SAM with concurrent to secondary mild eccentric MR. No other clinical issues such as LV systolic dysfunction, additional overt valvular insufficiencies, stenotic disease, or evidence of a congenital shunt were noted. This finding may suggest mild MV dysplasia, given the young age of the patient, although HOCM could also be a potential in this patient.

Assessment of systemic BP and T4 levels suggested to rule out complicating factors. The degree of dynamic obstruction secondary to SAM appears to be mild based on LV outflow velocity, while the hemodynamic effects of the MR appear to be minimal in light of normal LA size. No overt indication for cardiac medications at this stage. However, serial sonographic monitoring is required for further prognosis. Recheck echocardiogram suggested in 6 months, sooner if clinical signs arise. No overt anesthetic contraindications, assuming normal BP.

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.

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