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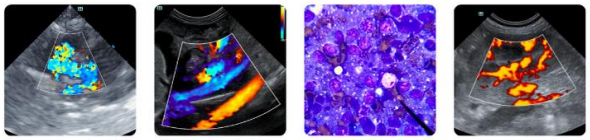

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT

Maple Valley Animal Rescue

SPECIES

Feline

BREED

DSH

SEX

Male

AGE

5 months

WEIGHT

4.1lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Mark van Campen, DVM

HOSPITAL NAME

Renfrew Animal Hospital

REFERRING VET

Dr. van Campen

INVOICE

45996

DATE

12/3/25

PRESENTING CLINICAL SIGNS

History: Grade V/VI heart murmur, short of breath after activity. No longer gaining weight. Recently started sneezing some bloody fluid from nose.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The anterior MV leaflet is elongated and club-like with prolapse into the LVOT. Moderate eccentric mitral regurgitation. Normal velocity. No left atrial dilation. Normal LV diameter with normal myocardial function. The LV wall thickness is mildly increased (IVS > LVPW). A ventricular septal defect is suspected; however, the location is atypical and is this not seen on the long axis view. An alternative explanation would be a double chamber right ventricle with stenosis through the region. The aortic root is difficult to visualize; however, appears relatively normal. The tricuspid valve is poorly visualized. No significant TR is seen. The right atrium is moderately dilated. Marked right ventricular hypertrophy and remodeling indicative of pressure overload. Flattening of the IVS. Mild elevation of pulmonic outflow velocities through the RVOT and PA with a dynamic obstruction suspected due to RVH. The PV is difficult to clearly visualize; however, mild thickening is observed. Moderately elevated aortic outflow velocity. The aortic valve appears to have normal morphology and mobility. No pericardial or pleural effusion noted.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	1.9	NM	0.62	1.0	0.42	62	80
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE (Swe)** (Abbott)	**LA** 2D short axis Base view (cm) (Abbott)		**LVOT VEL** (m/s)	**RVOT VEL** (m/s)	**E max** (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	NM	1.0	1.0		3.0	2.5	NM

**Note: All measurements based upon multi-modal images and methods. An average value is reported.*
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Complicated case. The most striking finding is marked right ventricular hypertrophy is present with evidence of severe pressure overload. Mildly elevated flow through the pulmonary artery may reflect a mild pulmonic stenosis; however, this would not explain this degree of hypertrophy. An ancillary issues, such as a right to left PDA, primary pulmonary hypertension, or potentially a double right chamber ventricle is also possible. There is also an abnormal jet of flow (see below) that may reflect a right to left VSD. That being said, this is in an atypical location and cannot be confirmed on ancillary views. An alternative explanation would be that the jet is simply restrictive flow through the right ventricle either secondary to RVH or potentially due to a DCRV. Finally, mitral valve dysplasia is confirmed with an LVOT obstruction and secondary MR. This appears hemodynamically mild comparatively.

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Referral is highly recommended in this case, due to the severity and rarity of issues, to ensure the diagnosis is confirmed through advanced imaging, and consider therapeutic options going forward. Ideally, I would have this patient on Atenolol going forward regardless. Additionally, Plavix would be reasonable if able to be medicated.

Long term prognosis is guarded to poor, as the patient will always be at high risk for CHF (right or left-sided), development of blood clots, exertional syncope and/or malignant arrhythmias/sudden death in the future.

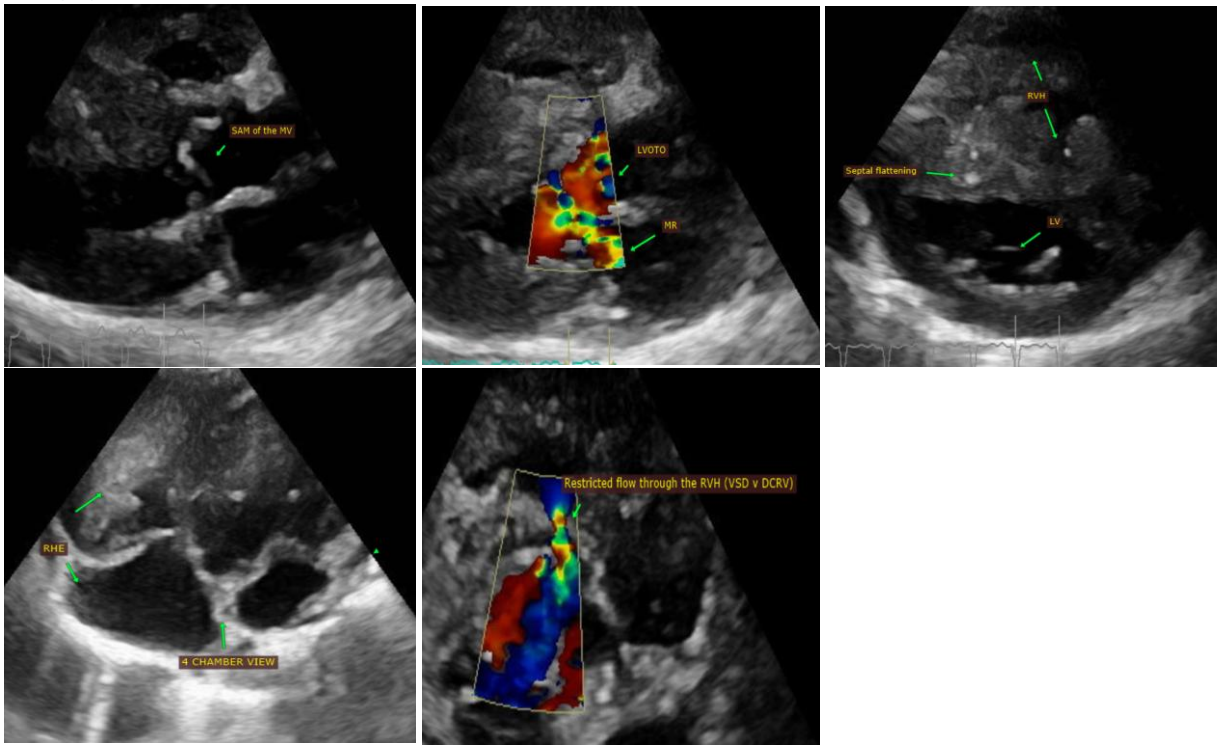
Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.). Monitoring of sleeping breathing rates at home is recommended as the best way to screen for progression to CHF at home.

PLAN

Highly recommend referral as discussed. If declined, institute low dose atenolol 6.25mg PO q24h and assess response. Institute Plavix 75mg tabs; Give ¼ tab by mouth every 24 hours (NOTE: bitter along cut edge, may cause foaming at the mouth; coat in entirety). If any change in breathing is noted, Lasix should be instituted- 1mg/kg PO q12h.

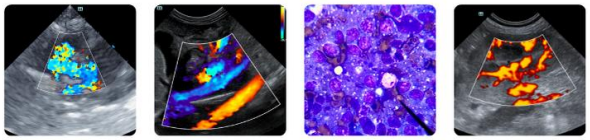
Recheck echocardiogram in 6 months, sooner if any clinical signs develop in the interim.

IMAGES



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. This report was generated using transcription software, and minor dictation



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

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com