

PATIENT
Dodie Frey

PRESENTING CLINICAL SIGNS
History: Grade 3/6 heart murmur. Assess prior to spay.
-Sedation: Torb.

SPECIES
Feline

BREED
DSH

SEX
Female

ECHOCARDIOGRAM FINDINGS
2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. The LV chamber is increased in diastole with a spherical appearance. A VSD is not visualized on 2D imaging; however color flow and Doppler are suspicious for a relatively large defect (max vel 4.8m/s). The shunt appears left to right. The left atrium is mildly increased in size. The right atrium is normal in size. The right ventricle appears normal. The MPA is mildly dilated. The mitral valve is mildly thickened. Trace MR. Normal velocity. Blood flow through the LVOT is normal in velocity. The aortic valve appears thickened with moderate AI. No obvious PI. Blood flow through the RVOT appears normal. There is no pleural or pericardial effusion seen. No additional shunts visualized.

CARDIAC CHART

AGE
6 months

WEIGHT
7.2lbs

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	3.3		0.38	2.1	0.35	50	94
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	1.5	1.3		1.2	1.2	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.

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Rebekah Jakum, CVT ARDMS/RVT

HOSPITAL NAME
Blue Ridge Veterinary Clinic

REFERRING VET
Dr. Filchner

INVOICE
24920

DATE
6/22/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The suspected cause of the murmur is a perimembranous ventricular septal defect (VSD). This is not definitive as the shunt cannot be visualized on 2D imaging; however, color flow is suggestive. The defect is relatively large in dimension, based upon LA and LV dilation. The MPA is mildly dilated, supporting mild volume overload/relative PS. Additionally the aortic valve appears thickened with a significant insufficiency. The velocity through the region is normal; however, a mild stenosis is not ruled out. No additional congenital defects are visualized; however, these findings are not definitive and **referral is strongly recommended.**

VSDs in cats have variable outcomes, and lifelong monitoring is advised. The defect in this case appears hemodynamically significant, leading to increased concern for volume overload over time and potentially progression to clinical signs and development of CHF within the patient's lifespan. The prognosis is guarded however, as the rate of progression with subclinical cardiomyopathy is highly variable. Patient will always remain at risk for development of congestive signs, arrhythmias and/or sudden death in the future.



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Given the age of the patient, use of medications is not yet recommended. This may change in the future should further volume overload be noted.

SPECIES
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Anesthetic risk is elevated, and should be post-poned until referral is sought. If declined, judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance. Monitor for arrhythmias, hypotension, hypoxia and intervene as indicated.

BREED
DSH

Monitor at home for any associated clinical signs, including respiratory changes or signs of a thrombus.

SEX
Female

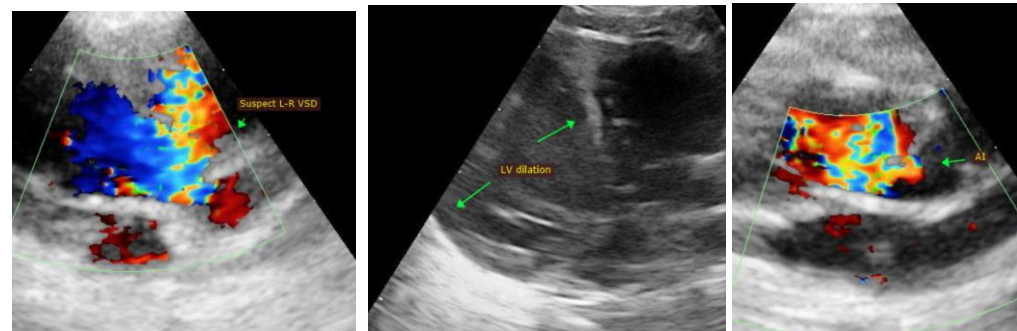
PLAN

Highly recommend referral. If declined, reassess in 6 months to screen for progression and need for medications.

AGE
6 months

IMAGES

WEIGHT
7.2lbs



INTERPRETED BY
Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

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.

IMAGING PERFORMED BY
Rebekah Jakum, CVT
ARDMS/RVT

Thank you for this referral. This report was generated using transcription software, and minor dictation 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.

HOSPITAL NAME
Blue Ridge Veterinary
Clinic

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