



PATIENT

Lola Fres

PRESENTING CLINICAL SIGNS

History: Grade 5/6 heart murmur.

SPECIES

Ferret

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve leaflets appear thickened with normal motion. No mitral regurgitation. No left atrial enlargement. Normal LV diameter with adequate myocardial function. A ventricular septal defect is visualized; 0.29cm in diameter. VSD appears left to right, although max velocity is decreased (2.2m/s. The tricuspid valve is poorly visualized. The right atrium is mildly enlarged and the right ventricular is mildly enlarged. The pulmonic valve is unable to be visualized. The MPA is prominent. Velocity through the region is moderately elevated. The aortic valve is mildly thickened with no obvious aortic insufficiency. Bicuspid v tricuspid cannot be determined. Normal aortic outflow velocities. No pericardial or pleural effusion noted. No obvious cardiac masses.

BREED

Domestic

SEX

Female Spayed

CARDIAC CHART

AGE

1 year

WEIGHT

2.2lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LWVd (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	1.0	NM	0.26	1.2	0.24	39	74
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	1.3	1.2	0.8		1.0	3.5	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.*

IMAGING PERFORMED BY

Dave Stasiuk, RDMS,
RDCS

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Complex congenital heart disease is present, with both a relatively large VSD and suspected pulmonic stenosis. Visualization is less than ideal, particularly of the pulmonic outflow region and diagnosis is based upon elevated velocity through the region. This may reflect a form of Tetralogy of Fallot (TOF); however, this cannot be determined in this image set. The VSD flow appears low velocity, which may suggest shunt reversal going forward. No obvious additional issues are identified.

HOSPITAL NAME

Resolution
Veterinary Ultrasound

Given the complexity of the findings, certainly **recommend referral to an attending Cardiologist in this case for advanced echocardiography and conformation of the diagnosis.** Surgical options are limited, particularly in this species. Atenolol may be warranted; however, I would not utilize this at this time as the heart rate is relatively low and the patient asymptomatic.

REFERRING VET

Dr. Hen-Boisen

INVOICE

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Continued assessment of progression in the future will help predict long term prognosis, which is guarded at this time. There is a chance that the combination of issues may remain stable for some time; however, the patient will always be at risk for progression to right-sided CHF, symptoms of

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hypoxia, polycythemia, etc. Arrhythmias/collapse and/or sudden death is also a possibility. Hypoxic heart disease will often present as marked exercise intolerance, cyanosis and syncope at home.

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Elective anesthesia is not advised. If necessary, referral to a facility with an Anesthesiologist should be considered.

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Monitor for development of a cough, labored breathing, abdominal distention, exercise intolerance or collapse episodes.

SEX

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PLAN

Highly recommend referral in this case. If unavailable in the short-term, recheck examinations are recommended with a local Cardiologist.

AGE

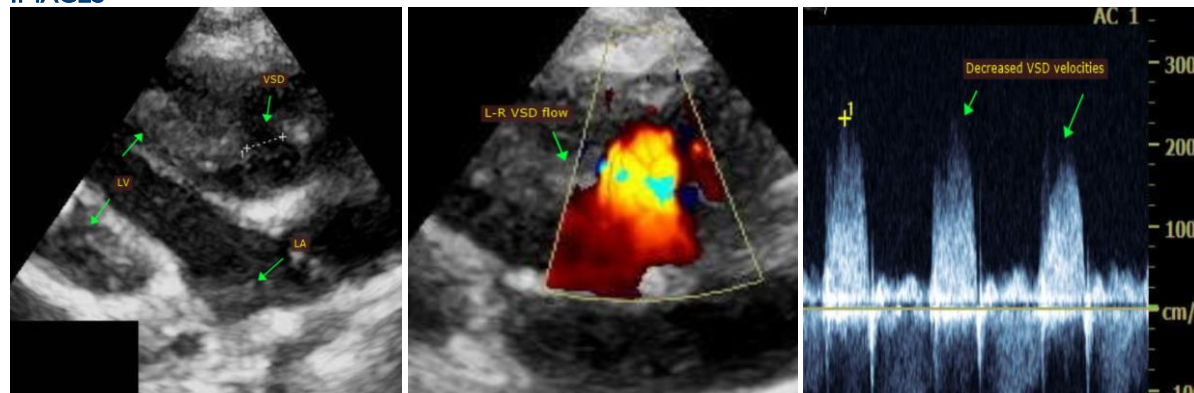
1 year

If declined, recommend conservative monitoring with a recheck echocardiogram in 1 year, sooner if any development of clinical signs.

WEIGHT

2.2lbs

IMAGES



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.

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RDCS

HOSPITAL NAME

Resolution
Veterinary Ultrasound

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.

REFERRING VET

Dr. Hen-Boisen

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

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