


**PATIENT**

Little Derby 58998a

**PRESENTING CLINICAL SIGNS**

History: Grade 4/6 heart murmur. Sedated with Torb/Midaz.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

3 years

**WEIGHT**

7lbs

**INTERPRETED BY**

 Maggie Machen Lamy,  
 DVM, DACVIM  
 (Cardiology)

**IMAGING PERFORMED BY**

A Nicastro, DVM

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The MV appears normal. Trivial mitral regurgitation. Normal left atrial dimension. Decreased LV diameter with adequate myocardial function. The LV walls are largely normal. A muscular ventricular septal defect is present. Flow across the defect cannot be assessed. The aortic root appears dilated and over-riding the septum. The tricuspid valve appears normal with mild tricuspid regurgitation. Elevated TR velocity (max is not appreciated.). Mild right atrial dilation. Marked right ventricular hypertrophy and remodeling indicative of pressure overload. Flattening of the IVS from some views. The pulmonic outflow velocities are elevated, although a max is in the moderate category. The MPA and valve are poorly visualized due to anatomic distortion. The aortic valve appears to have normal morphology and mobility. No obvious cardiac shunts are visualized. No pericardial or pleural effusion noted.

**CARDIAC CHART**

FELINE 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	3.2	NM	0.50	1.1	0.51	40	72
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		2.1	4.2	NM
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i> 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.							

**HOSPITAL NAME**

Charleston Animal Society

**REFERRING VET**

Dr. Fuller

**INVOICE**

27731

**DATE**

11/30/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The most likely diagnosis is Tetralogy of Fallot, indicating the presence of a VSD, RV hypertrophy, pulmonic stenosis and over-riding aorta. The pulmonic valve is difficult to visualize; however, flow through the region appears elevated. The LA is normal indicating low risk for left-sided complication. The right atrium is mildly enlarged; however, this may certainly progress going forward. Of more concern, the RV is markedly hypertrophied, which predisposes to issues going forward. No additional issues are identified.

Referral to a local Cardiologist is highly recommended in any complex congenital case, due to the severity and rarity of issues, to confirm the diagnosis through advanced imaging, and consider therapeutic options going forward. In some cases, Atenolol is beneficial; however, in a 3-year-old cat with what appears to be relatively balanced disease and no symptoms, this is not clearly warranted at this time. In a rescue situation, simple monitoring would be a reasonable approach.



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Long term prognosis is guarded to poor. That being said, there will always be risk for CHF (right sided), development of blood clots, exertional syncope and/or malignant arrhythmias/sudden death in the future.

**SPECIES**

Feline

Sedation with butorphanol is typically safe in cardiac cases, however anesthetic risk is elevated. General anesthesia should be avoided unless absolutely necessary, and referral to a facility with an anesthesiologist considered.

**BREED**

DSH

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.

**SEX**

Male Neutered

**PLAN**

Highly recommend referral for reassessment in the future and lifelong monitoring. If declined, recheck echocardiogram in 6-12 months, sooner if any clinical signs develop in the interim.

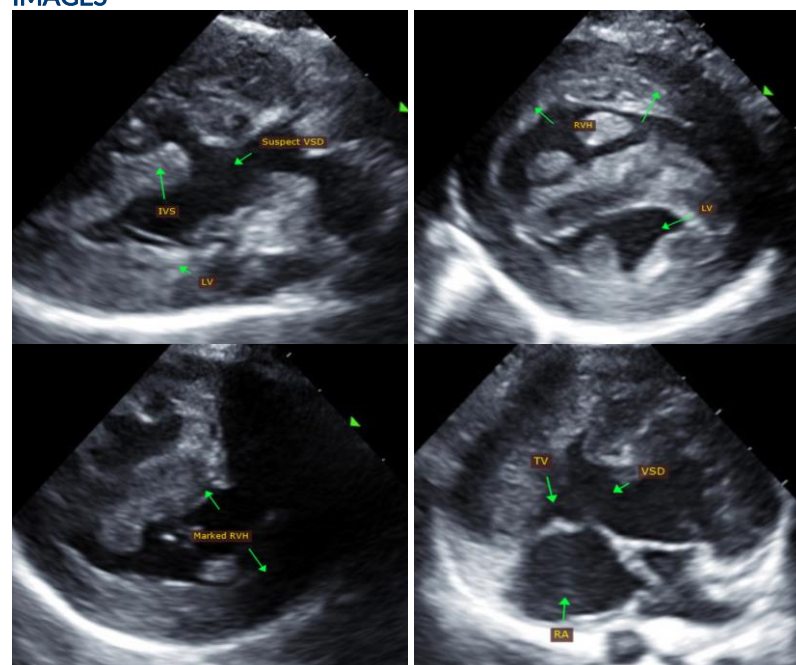
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**IMAGES**

**WEIGHT**

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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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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.

**DATE**

11/30/22

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