



**PATIENT PRESENTING CLINICAL SIGNS**

Liam Rescue 5/6 heart murmur  
Abnormal PE/Chem/CBC/UA Results:

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

BREED

Golden Retriever Mix

SEX

M

AGE

4 m

WEIGHT

8

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
<b>CARDIAC PARAMETERS</b>	<b>VMAX</b> (m/s)	<b>VMAX</b> (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>				1.42	32	62	0.41
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
<b>CARDIAC PARAMETERS</b>	(BPM)	<b>VMAX</b> (m/s)	<b>MAX</b> (m/s)	(kg)	2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
<b>PATIENT</b>	127	1.3	1.3		2.6	2.8	

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**HOSPITAL NAME**

New Britain VC

**REFERRING VET**

Dr. Bandekar

**INVOICE**

16069

**DATE**

2/8/23

**Cardiac Presentation**

The echocardiogram in this patient demonstrated mild increased **left atrial** size based on 2 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. Minor centralized MR was present on Doppler. The **left ventricle** presented normal thicknesses with linear contour with moderate LV dilation. 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 of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Normal measured LVOT velocity was noted. The **right atrium** and auricle revealed normal to mildly increased size with normal anechoic content. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** exhibited possible subtle increased size compared to the LV with normal myocardial echogenicity and free wall thickness. **Pulmonary outflow** tract assessment revealed overtly normal pulmonic valve structure, turbulent to dynamic main pulmonary artery blood flow, with subjective normal diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. No cardiac tumors were present.



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**ULTRASONOGRAPHIC FINDINGS**

- Enlarged LA / LV with adequate LV systolic function
- Turbulent to dynamic blood flow in main pulmonary artery, normal measured RVOT velocity

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The echocardiogram in this patient is most consistent with a shunt with secondary LA / LV enlargement with emerging volume overload and most likely consistent with patent ductus arteriosus, given the presence of turbulent to dynamic blood flow within the main pulmonary artery. Minor MR was present without evidence of mitral valve dysplasia or secondary significant MR, as well as no obvious evidence of additional stenotic disease.

Ideally, a referral to a local cardiologist for further assessment and potential therapy is advised. If a referral is not possible, a recheck echocardiogram is recommended in 4-6 weeks.



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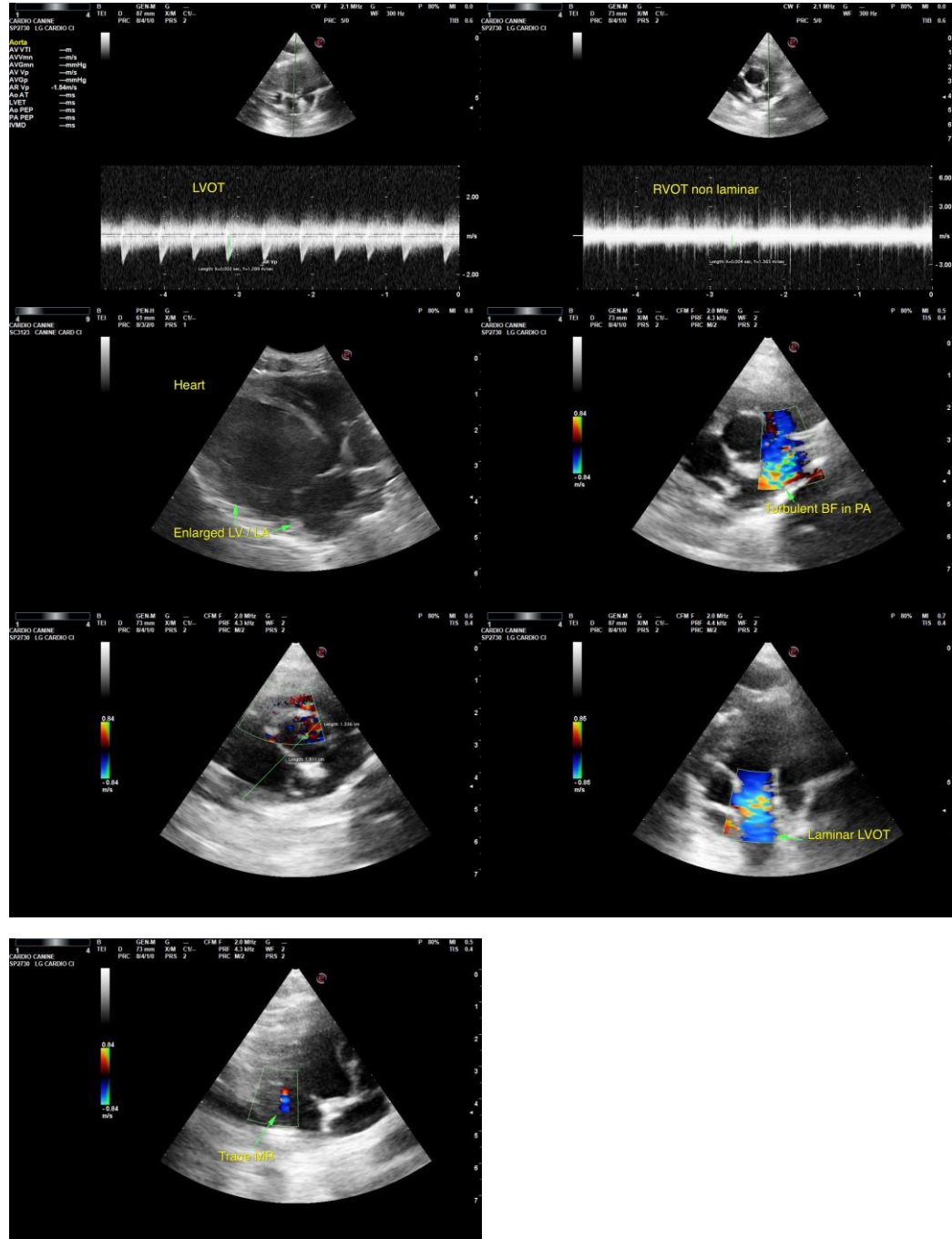
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



**PATIENT**

Liam Rescue

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