



**PATIENT PRESENTING CLINICAL SIGNS**

Luna Dinu breathing issues, rads show mediastinal density and mild bronchiolar pattern

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

BREED

Sheltie

SEX

FS

AGE

2 years

WEIGHT

9.8 kg

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>				1.3	48	80	0.2
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>	120	1.2	1.2		2.5	2.4	

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Acton VC

**REFERRING VET**

Hess

**INVOICE**

14843

**DATE**

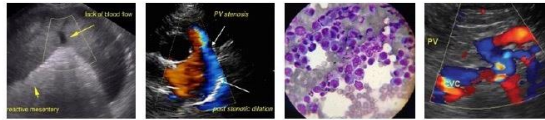
8/17/23

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 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. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum, pericardial and extra-cardiac** regions were free of overt masses in the visible window.

**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram



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Luna Dinu

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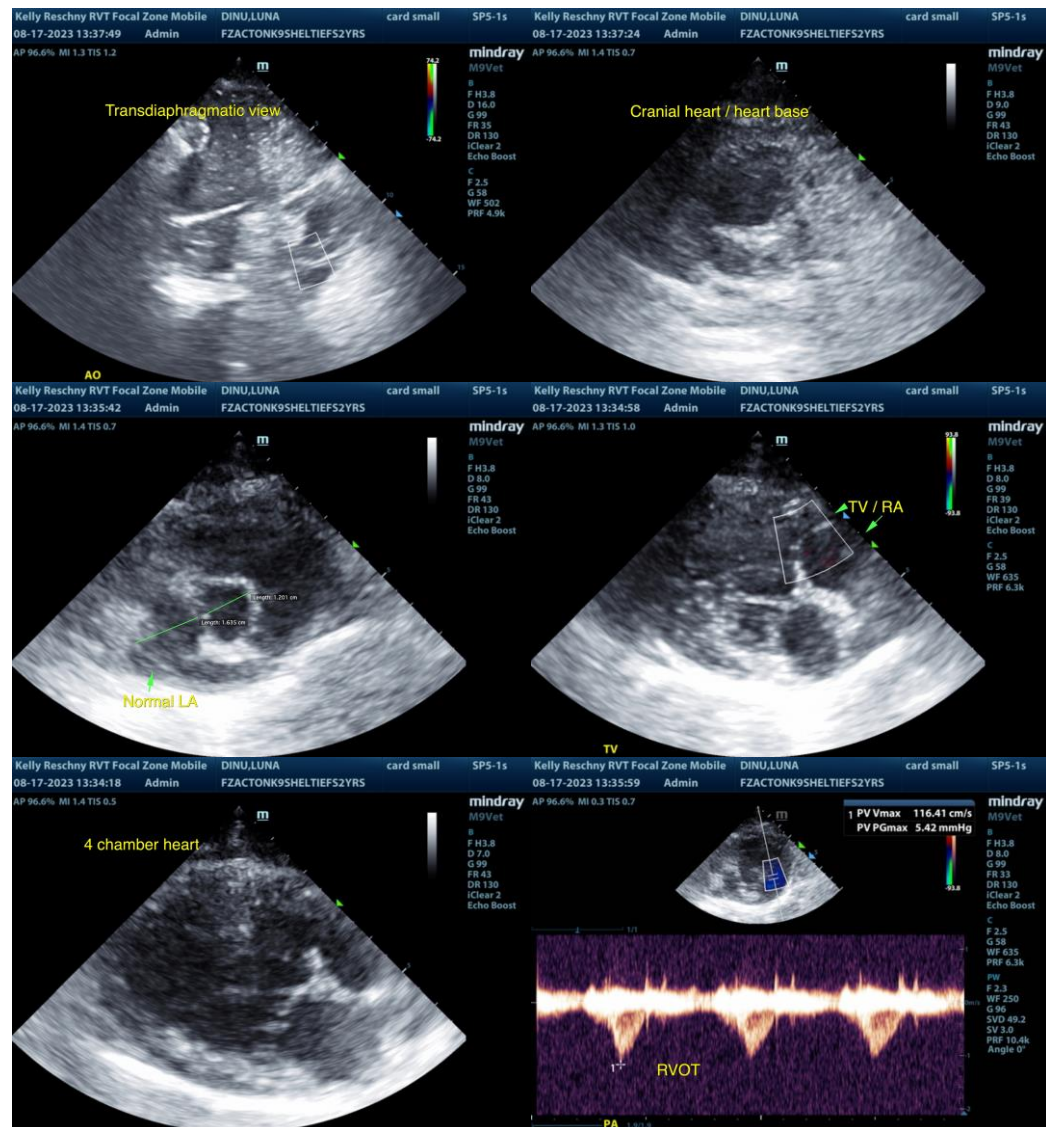
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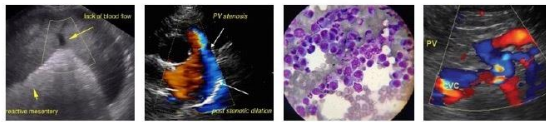
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of structural or functional cardiomyopathy as an obvious cause or contributing factor to the patient's respiratory abnormalities. There was no evidence of left or right heart chamber enlargement, LV systolic dysfunction, significant valvular insufficiencies, or evidence of clinical pulmonary hypertension. The echocardiogram is most consistent with non-cardiogenic respiratory disease with consideration for primary lower airway disease indicated. There was no obvious evidence of pericardial or cranial mediastinal lesions or pathology.

At times, small lesions within the pericardial space or cranial mediastinum surrounded by aerated lung may not be sonographically visible. If clinical concern for a smaller, nonobvious cranial mediastinal or pericardial lesion, thoracic CT is recommended. There is no indication for cardiac medications. As-needed respiratory support with consideration for possible lower airway sampling for further clarification is recommended.





## PATIENT

Luna Dinu

**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.**

## SPECIES

Canine

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.

## BREED

Sheltie

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
[info@SonoPath.com](mailto:info@SonoPath.com)

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