

**PATIENT**

Lucy Randall

**PRESENTING CLINICAL SIGNS**

History: coughing started in september, rads done, treated for possible kennel cough/asthma, seemed better but coughing again Current Medications hydrocodone/homatropine 5 mg/1.5 mg 1/2 up to q 6 hrs Radiographic Findings heart globoid - possible breed abnormality Abnormal PE/Chem/CBC/UA Results: 9/30/2021 sdma 18 N=14 or less

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

BREED	CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
Pug								
SEX	NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
Spayed Female	PATIENT	--	--	1.15	1.1	--	--	0.1
AGE	CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
13 Years								
WEIGHT	NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
20 lbs	PATIENT	--	1.20	.90	--	2.5	--	--

**Cardiac Presentation**

**INTERPRETED BY**

Eric Lindquist, DMV, DABVP, Cert. IVUS

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 thicknesses with linear contour and was not dilated nor restricted. Aortic velocity was 1.20 m/s during sinus beats. 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). Pulmonic velocity was .90 m/s during sinus beats. No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window. Periodic tachyarrhythmia noted in this patient.

**HOSPITAL NAME**

Pawsitive WVC

**REFERRING VET**

Dr. Popuette

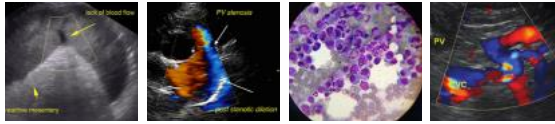
**INVOICE NUMBER**

12538

**ULTRASONOGRAPHIC FINDINGS**

**DATE**

11/15/21



**PATIENT**

Lucy Randall

- Normal echocardiogram with severe arrhythmic activity

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Canine

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No structural or functional cardiac disease appears to be an issue, other than when tachyarrhythmia occurs. Treatment should be based on EKG results. Holter monitor may be necessary in this patient for full evaluation of arrhythmic activity. Normal echocardiogram otherwise. The cough is not owing to cardiogenic volume overload. No evidence of left sided heart failure present.

**BREED**

Pug

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

20 lbs

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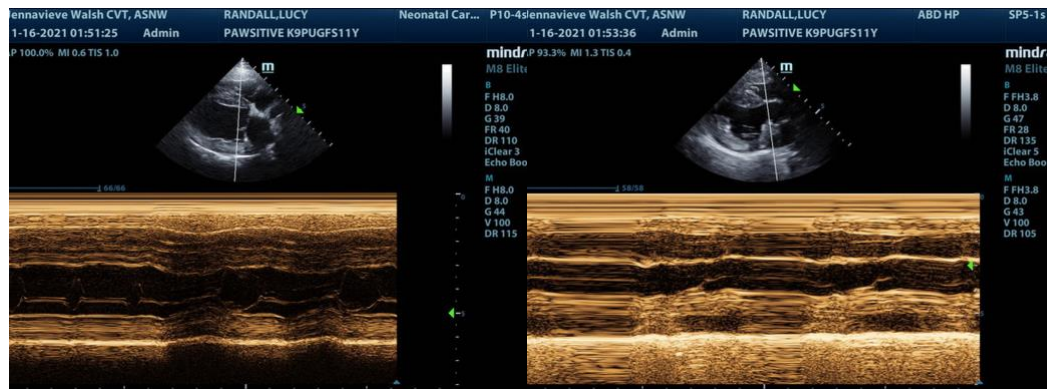
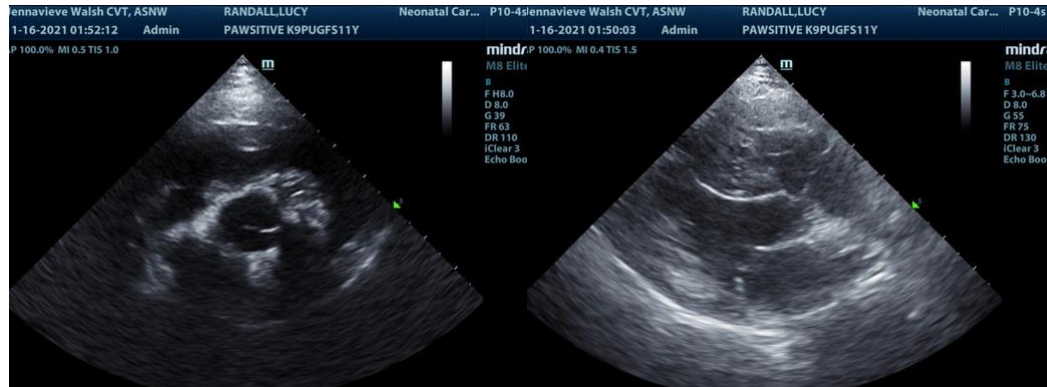
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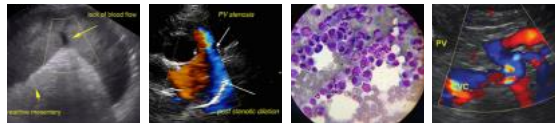
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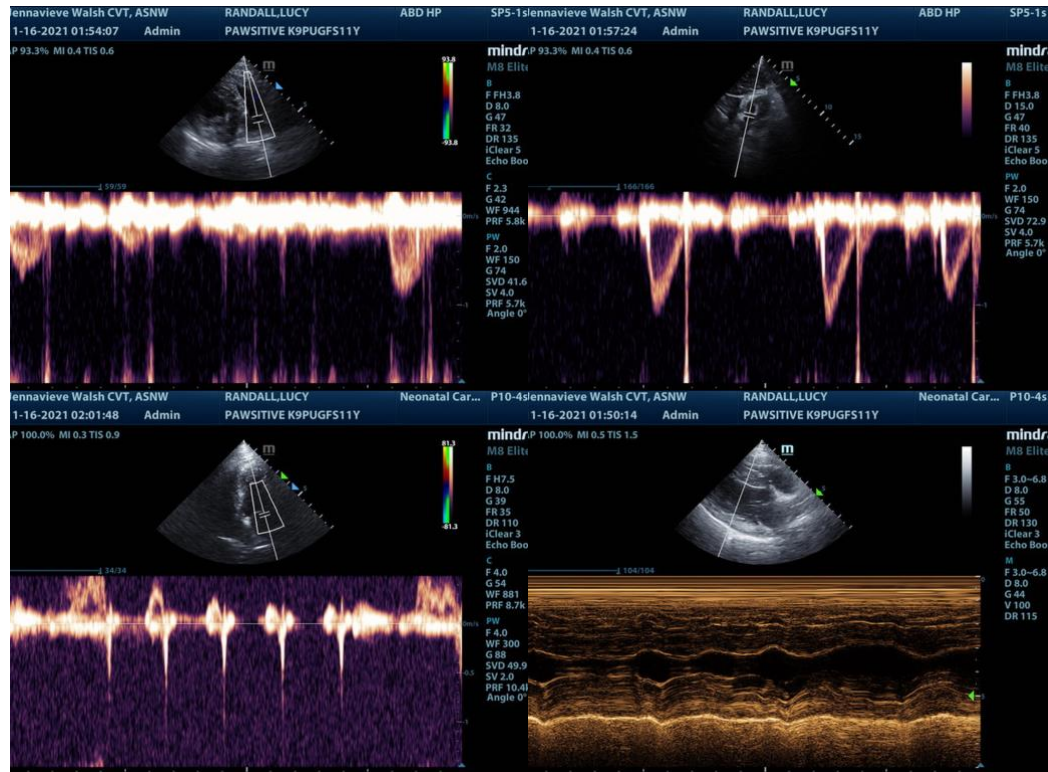
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
Eric.Lindquist@SonoPath.com