

**PATIENT PRESENTING CLINICAL SIGNS**

Dakota Hill History: New murmur noted January 2023. Grade 2/6 left systolic . Chronic cough/gag since puppy. Cough/gag when excited or after exercise.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Grade 1-2/6 left systolic cardiac murmur.

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Cavapoo

**SEX**

Neutered Male

**AGE**

6 Years 6 Months

**WEIGHT**

22 Pounds

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	--	--	1.15	1.2	--	92	0.2
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)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	--	1.20	.90	--	--	2.18	--

**INTERPRETED BY**

Eric Lindquist, DMV DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Louise Mandeville

**HOSPITAL NAME**

Bettervet

**REFERRING VET**

Dr. Louise Mandeville

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. Trivial **mitral** insufficiency was noted, not clinically significant. The **left ventricle** presented 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 and pericardial and extra-cardiac regions** were free of masses in the visible window.

**ULTRASONOGRAPHIC FINDINGS**

- Trivial mitral insufficiency
- Essentially normal echocardiogram- no evidence of clinical disease

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

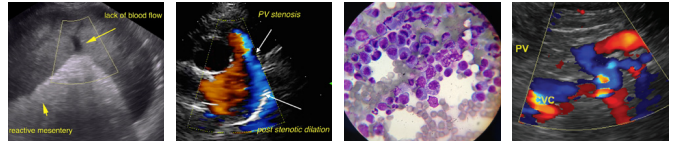
**INVOICE**

21968

**DATE**

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The cough is noncardiogenic in this patient. Primary respiratory disease should be considered. Cannot rule out the possibility of a paroxysmal arrhythmia, however, no arrhythmogenic activity was noted during the exam. Structure and function appear to be essentially normal.



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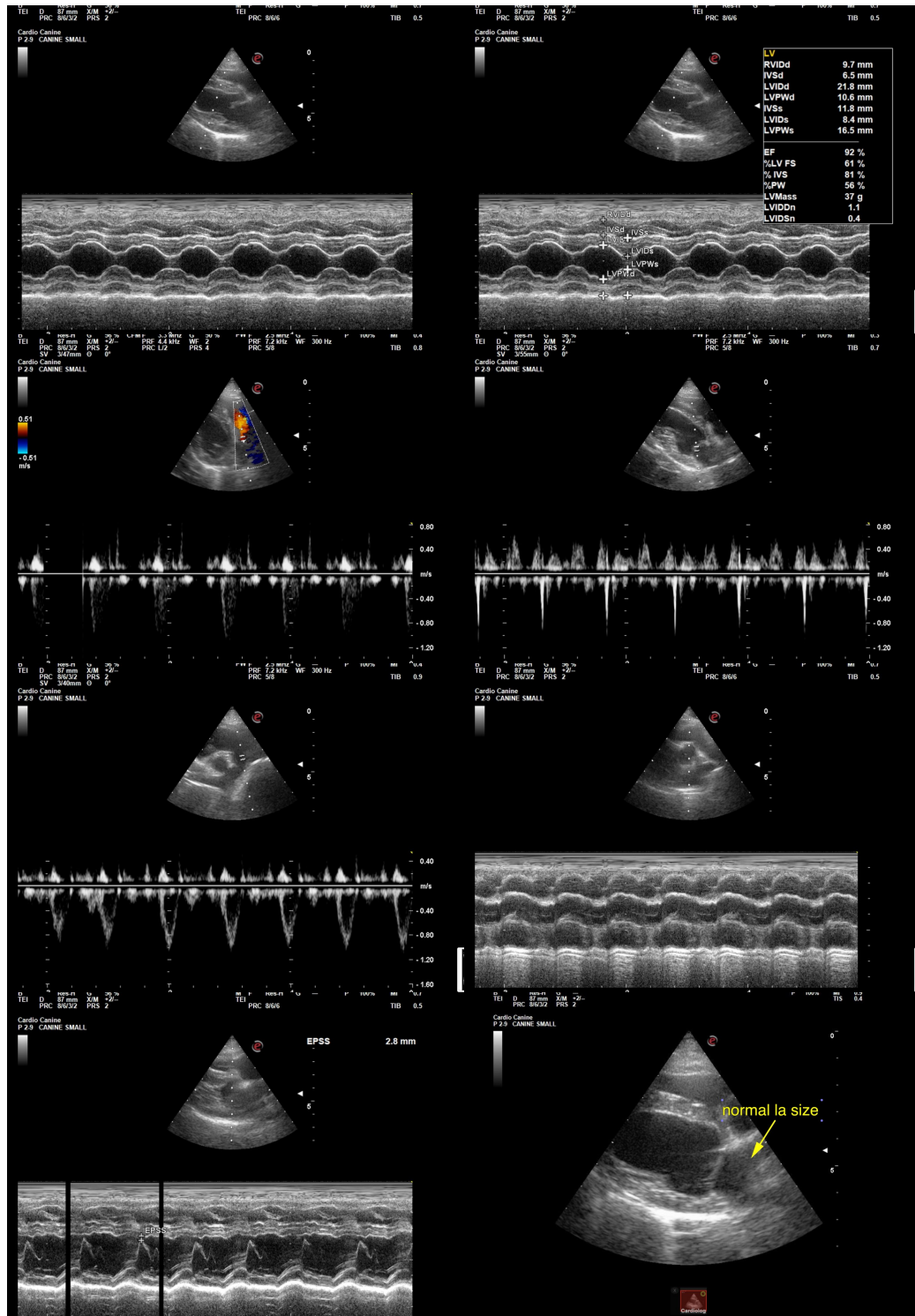
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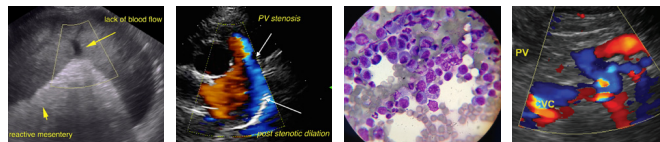
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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**  
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