



## PATIENT PRESENTING CLINICAL SIGNS

**Holly Hadley**  
**SPECIES** Canine  
**BREED** Cavalier/Poodle  
**SEX** Female  
**AGE** 10 Months  
**WEIGHT** 16.6 Pounds

Clinical Exam Findings: Healthy older puppy, seen for V/D of two days duration, mild GI bloating and abdominal pain No murmur ausculted in any field, clear lung fields Good size and musculature for breed and age Heart Rate and Respiratory Rates HR: 80, RR: 24 Current Medications Metronidazole, Cerenia  
Radiographic Findings Part of thoracic cavity pictured in abdominal rads; markedly enlarged cardiac silhouette present with elevated trachea, rough VHS ~ 11.5 liver silhouette also appears small: not inline with rib margin

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	<1.6	28-40	40-100	<0.6
PATIENT			0.96	1.12	23	48	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		1.32	0.51		2.57	2.39	

## INTERPRETED BY

Eric Lindquist, DMV,  
DABVP, Cert. IVUSS

## IMAGING PERFORMED BY

Jenna Walsh, CVT

## HOSPITAL NAME

Companion AC

## REFERRING VET

Dr. Casita

## DATE

12/27/21

## INVOICE

33738

## 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 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. Trivial **tricuspid** insufficiency noted at 2.0 m/sec, essentially normal variant, especially if the patient was sedated at the time of the sonogram. 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. Hepatic veins were not dilated.



**PATIENT** **ULTRASONOGRAPHIC FINDINGS**

Holly Hadley

- Normal echocardiogram
- Depressed fractional shortening owing to sedation
- Trivial tricuspid insufficiency - likely owing to sedation

**SPECIES**

Canine

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**BREED**

Cavalier/Poodle

No evidence of congenital disease. Theoretically, the cardiac silhouette may be excessive on the right side if the radiographs were taken during ventricular diastole. However, structurally the heart appears normal with adequate function other than mild tricuspid insufficiency, which can be physiological under sedation. No structure evidence of disease noted on the tricuspid valve. Other causes of respiratory issues such as primary respiratory disease should be considered. Given the breed and age, screening for Addison's would be warranted as well. EKG also indicated if ont already performed.

**SEX**

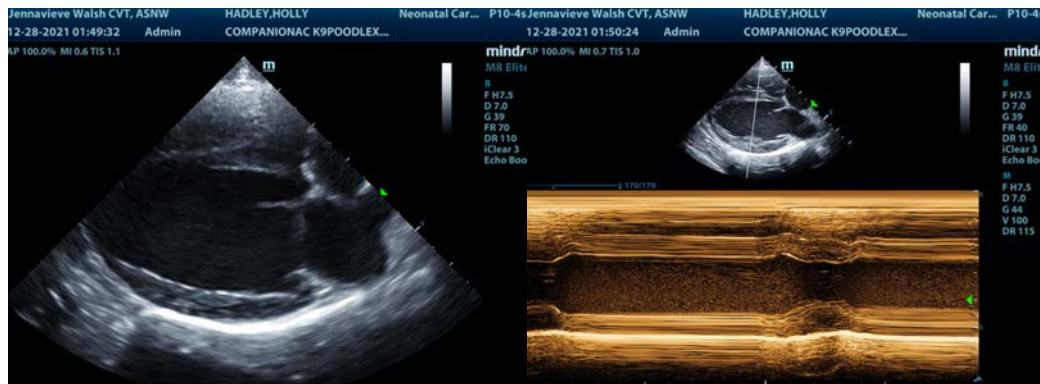
Female

**AGE**

10 Months

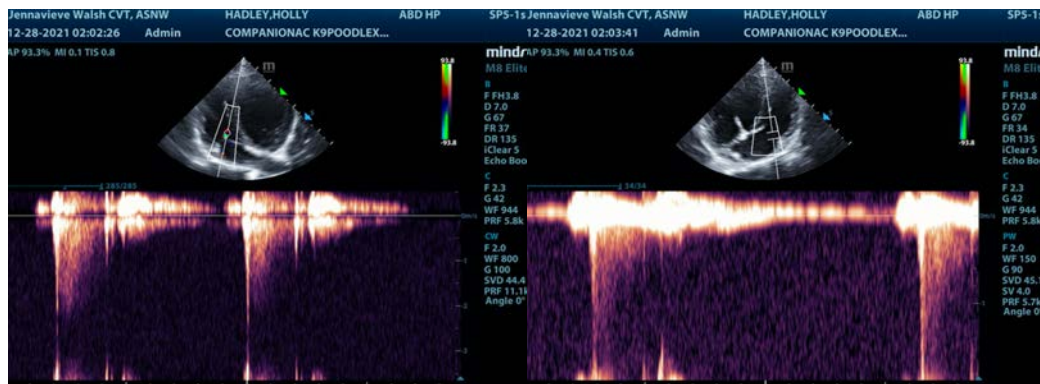
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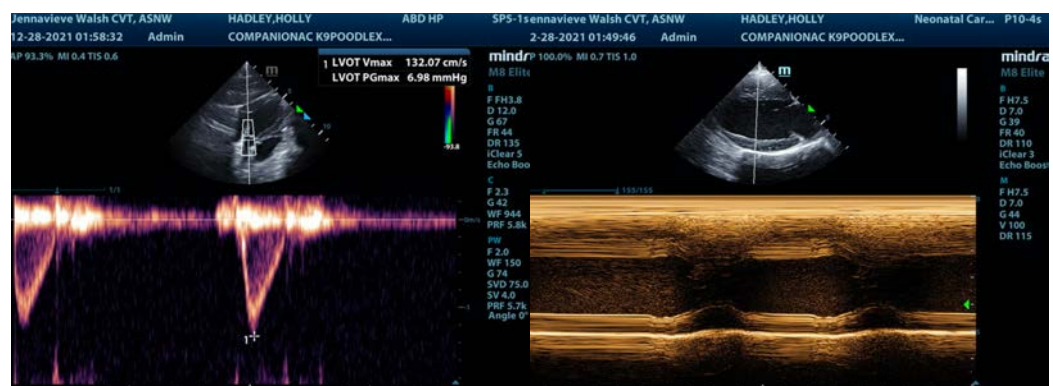
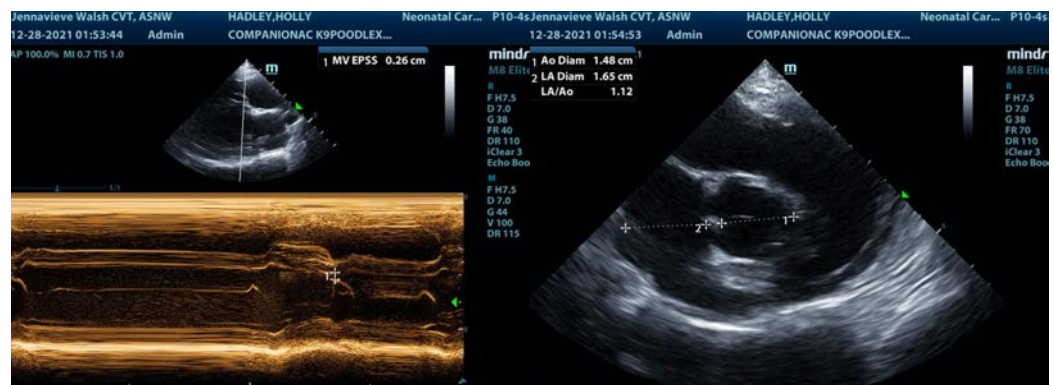
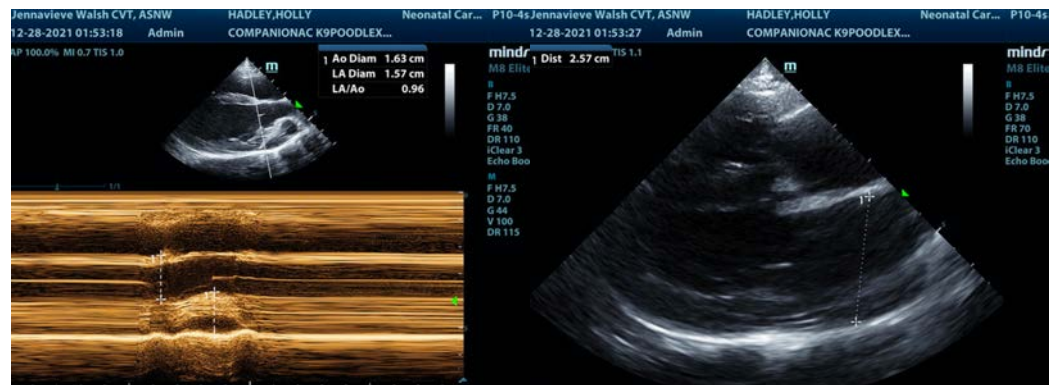
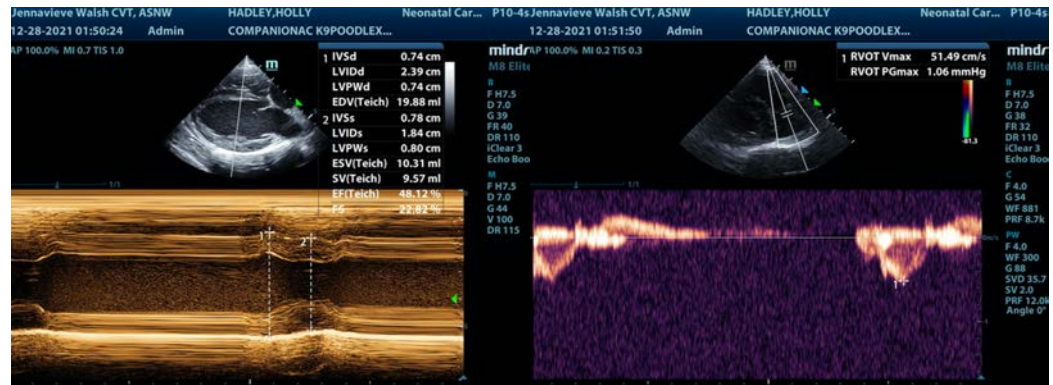
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**PATIENT**

Holly Hadley

**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.**

**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**

Cavalier/Poodle

**Eric Lindquist, DMV, DABVP, Cert. IVUSS**

CEO of Sonopath.com

Eric.Lindquist@SonoPath.com

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