



**PATIENT PRESENTING CLINICAL SIGNS**

Piper Austen

History: Piper is a two year old, FS, English Springer Spaniel with the history of Grade I/VI systolic heart murmur on exam. Her owner reports that she is active (hunts and hikes lots) with no concerns. CBC, Chemistry, cardiac proBNP were normal in December 2021. Piper chronically tests positive for Anaplasmosis. ECG is attached as a pdf. Blood pressure today was 145/69, 132/59, 100/42, 121/55

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

English Springer Spaniel

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. Trivial **pulmonic** insufficiency was noted. This is not clinically significant. 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.

**SEX**

Spayed female

**AGE**

2 years

**WEIGHT**

43 lbs

**INTERPRETED BY**

Eric Lindquist, DMV DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Todd

**HOSPITAL NAME**

Lambs Gap AH

**REFERRING VET**

Dr. Campbell

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			1.18	1.3	31	59	0.25
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	BELOW	BELOW	BELOW	BELOW
PATIENT	57	1.6	1.1	43 lbs	2.76	3.65	

**INVOICE**

42221

**DATE**

12/19/22

**ULTRASONOGRAPHIC FINDINGS**

Normal echocardiogram with trivial pulmonic insufficiency, not clinically significant.



**PATIENT**

Piper Austen

**SPECIES**

Canine

**BREED**

English Springer Spaniel

**SEX**

Spayed female

**AGE**

2 years

**WEIGHT**

43 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Todd

**HOSPITAL NAME**

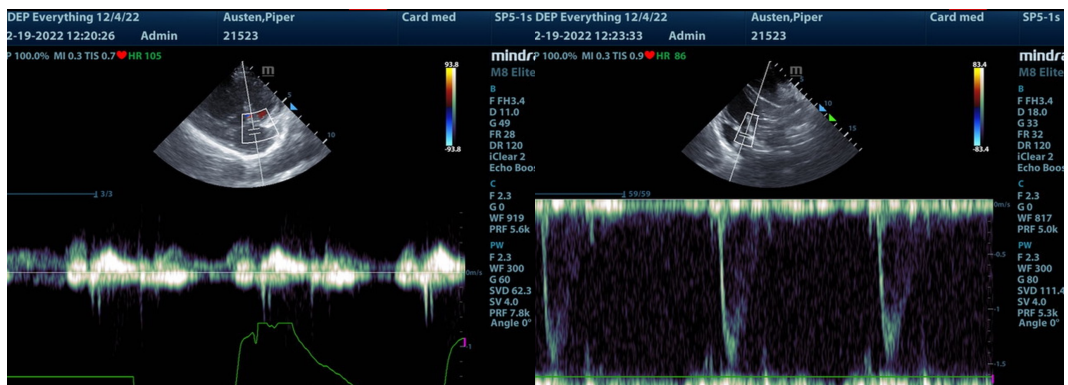
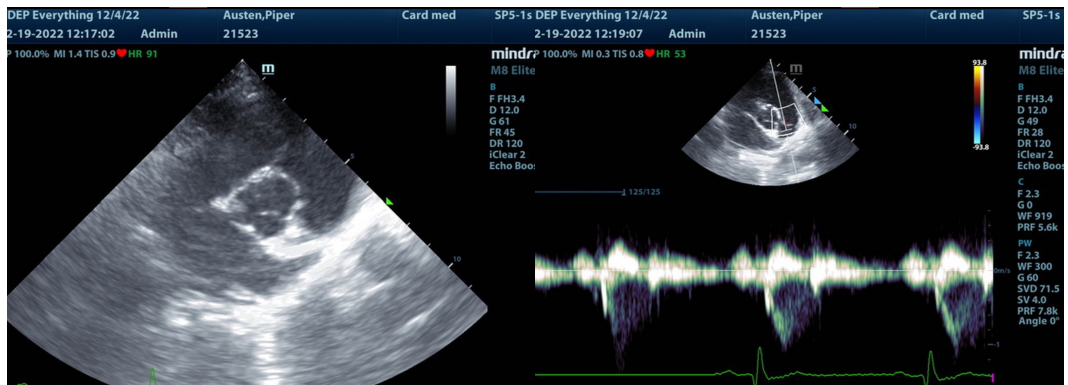
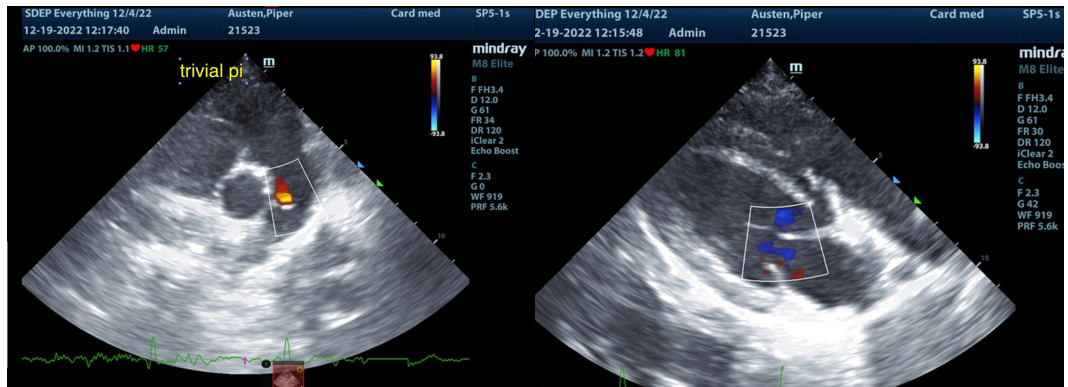
Lambs Gap AH

**REFERRING VET**

Dr. Campbell

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of pathology. There is no contraindication to anesthetic procedure. Unless the murmur grade increases there is no need for a recheck.



**INVOICE**

42221

**DATE**

12/19/22



**PATIENT**

Piper Austen

**SPECIES**

Canine

**BREED**

English Springer Spaniel

**SEX**

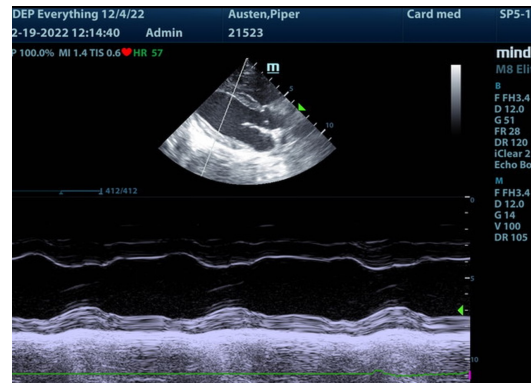
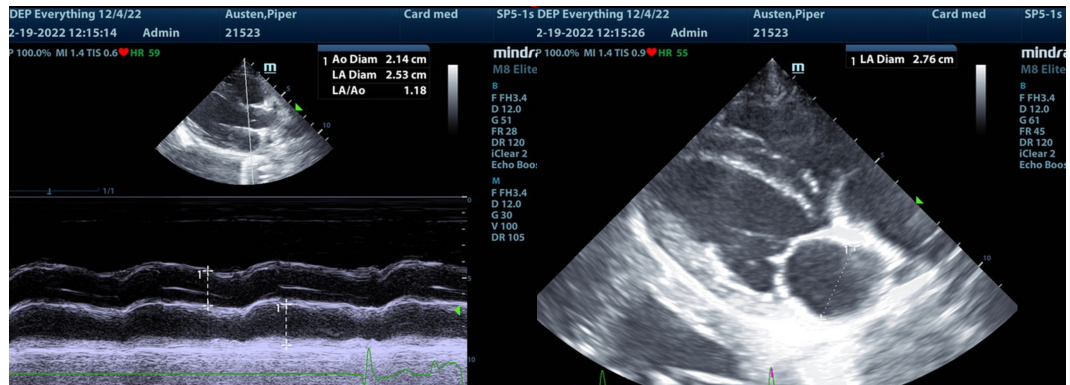
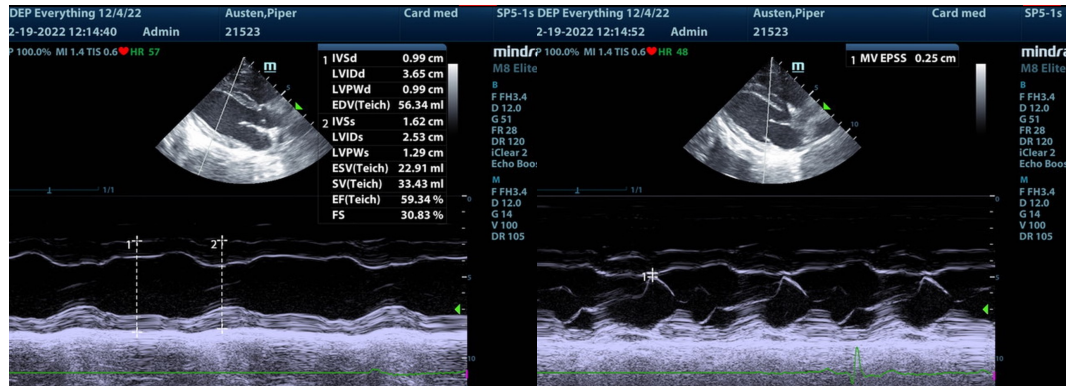
Spayed female

**AGE**

2 years

**WEIGHT**

43 lbs



**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Todd

**HOSPITAL NAME**

Lambs Gap AH

**REFERRING VET**

Dr. Campbell

**INVOICE**

42221

**DATE**

12/19/22

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.

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