



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT**  
Gunner Conner  
History: heart murmur auscultated on routine exam  
Abnormal PE/Chem/CBC/UA Results: Normal besides heart murmur on puppy exam

**SPECIES**

Canine

**BREED**

German Shepherd

**SEX**

Male

**AGE**

4 months

**WEIGHT**

47 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Whitesell

**HOSPITAL NAME**

Dickson AC

**REFERRING VET**

Dr. Whitesell

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. Minor **mitral** valve insufficiency was noted, yet 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 revealed excessive at 4 m/sec. Secondary aortic insufficiency was noted at 4.5 m/sec. The aortic valve was thickened and domed. 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. The deep pulmonary artery was imaged with no evidence of PDA. **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.

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base;)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT			1.15	1.6			0.1
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		4.5	0.9	47 lbs	3.16	3.1	

**INVOICE**

44130

**DATE**

5/2/23



**PATIENT**

Gunner Conner

**ULTRASONOGRAPHIC FINDINGS**

Aortic stenosis pattern with secondary aortic insufficiency and mitral insufficiency.

**SPECIES**

Canine

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The prognosis is long term is guarded. No therapy is warranted at this time; however, Atenolol therapy would be necessary if basal heart rate reaches > 120 or clinical signs of exercise intolerance occur. The breeding line should be evaluated for congenital anomalies. This is an unfit for sale presentation.

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German Shephrd

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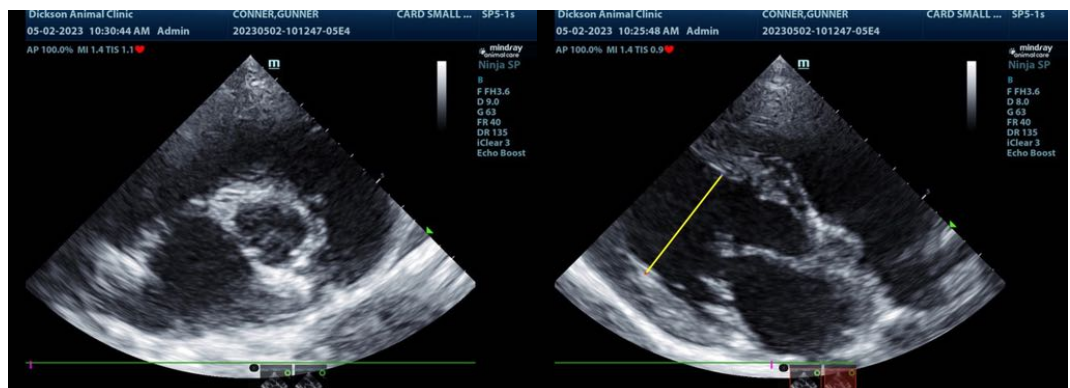
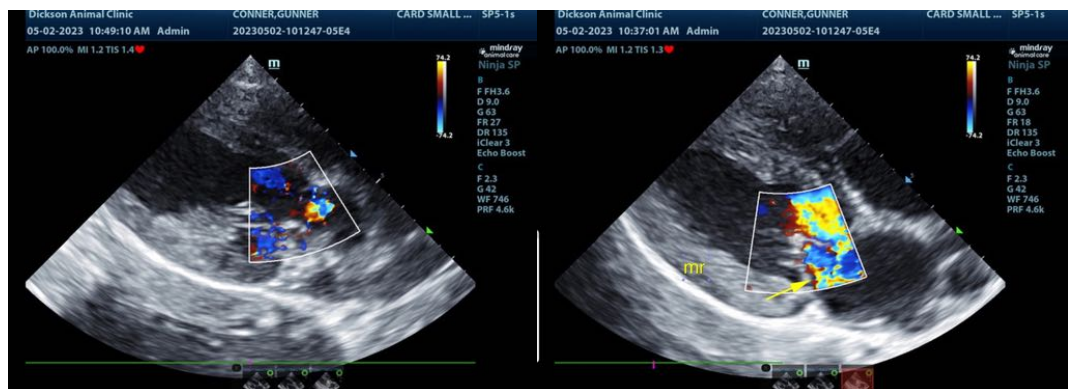
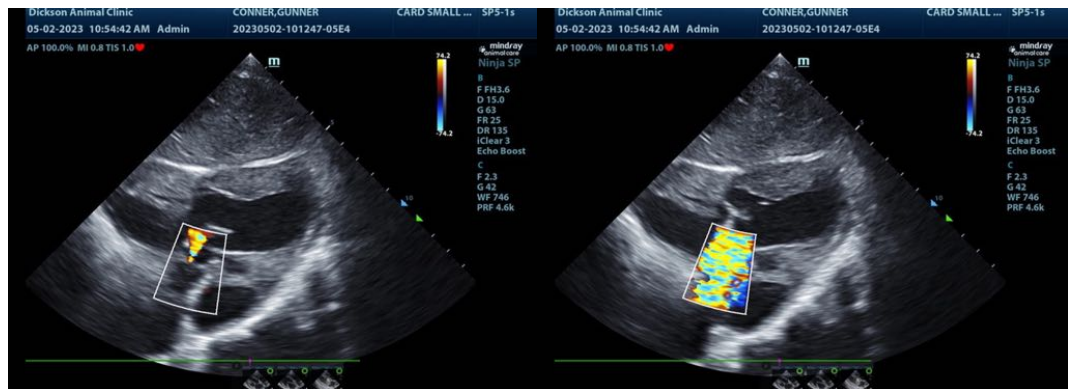
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**PATIENT**

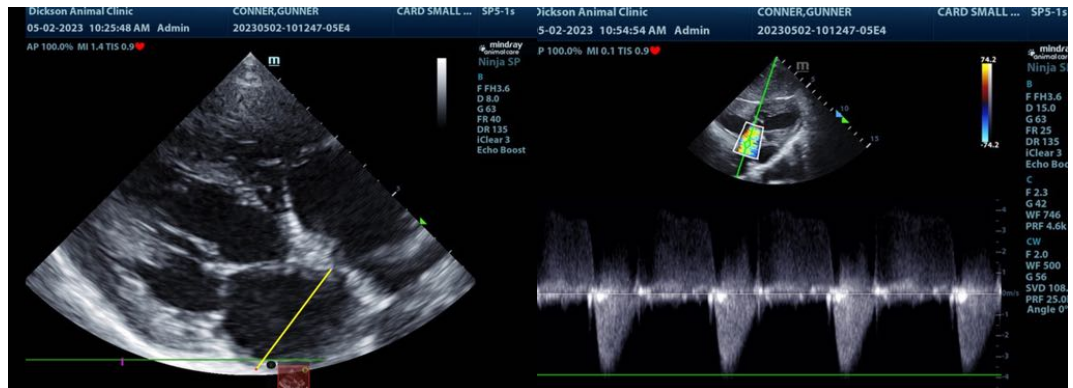
Gunner Conner

**SPECIES**

Canine

**BREED**

German Shephrd



**SEX**

Male

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.

**AGE**

4 months

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.

**WEIGHT**

47 lbs

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

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