



**PATIENT**

Sadie Hanke

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Spayed Female

**AGE**

12 Years 7 Months

**WEIGHT**

11.6 Pounds

**INTERPRETED BY**

Camden Rouben, DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Kathleen Byrnes

**HOSPITAL NAME**

AC Madison Mayodan

**REFERRING VET**

Dr. Flanagan

**INVOICE**

36516

**DATE**

4/10/26

**PRESENTING CLINICAL SIGNS**

History: P presented for recheck echo. Last done 4/1/25 report read by Dr. Brethel rDVM heard gallop rhythm, no murmur heard, Previous Echo B1- rec recheck in 10-12 mos.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
<b>PATIENT</b>	4.96	3.38	1.61	1.24	37.93	70.86	0.25
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6				
<b>PATIENT</b>	94	1.28	--	5.27	2.13	2.16	1.34

RVOT Vmax: 0.76, LVOT Vmax: 0.63

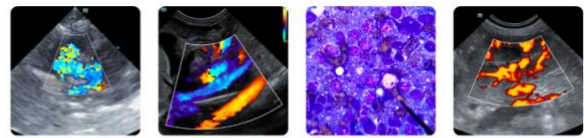
**ECG Interpretation**

Based off of the electrocardiogram provided, the average heart rate is about 98 beats per minute. The rhythm is regularly irregular. There is a P for every QRS and vice versa. This appears to be a sinus arrhythmia. The mean electrical axis based off of the LAD is 21 degrees.

**Cardiac Presentation**

The mitral valve leaflets are mildly thickened with mitral regurgitation posteriorly directed. There is no prolapse of the mitral valve leaflet. The left atrial size is normal. The left ventricular internal dimensions during diastole are within normal limits and the systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size with mild tricuspid regurgitation. There's no evidence of prolapse of the tricuspid valve leaflets. There is no evidence of pulmonary hypertension based off of the tricuspid valve regurgitation velocities. Right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology and the corresponding outflow velocities are within normal limits. There's no evidence of aortic or pulmonic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There's no evidence of pleural effusion, pericardial effusion, or intracardiac masses based off of the images provided.

**ULTRASONOGRAPHIC FINDINGS**



**PATIENT**

- The overall diagnosis is degenerative valve disease, ACVIM stage B1, affecting the mitral and tricuspid valves.

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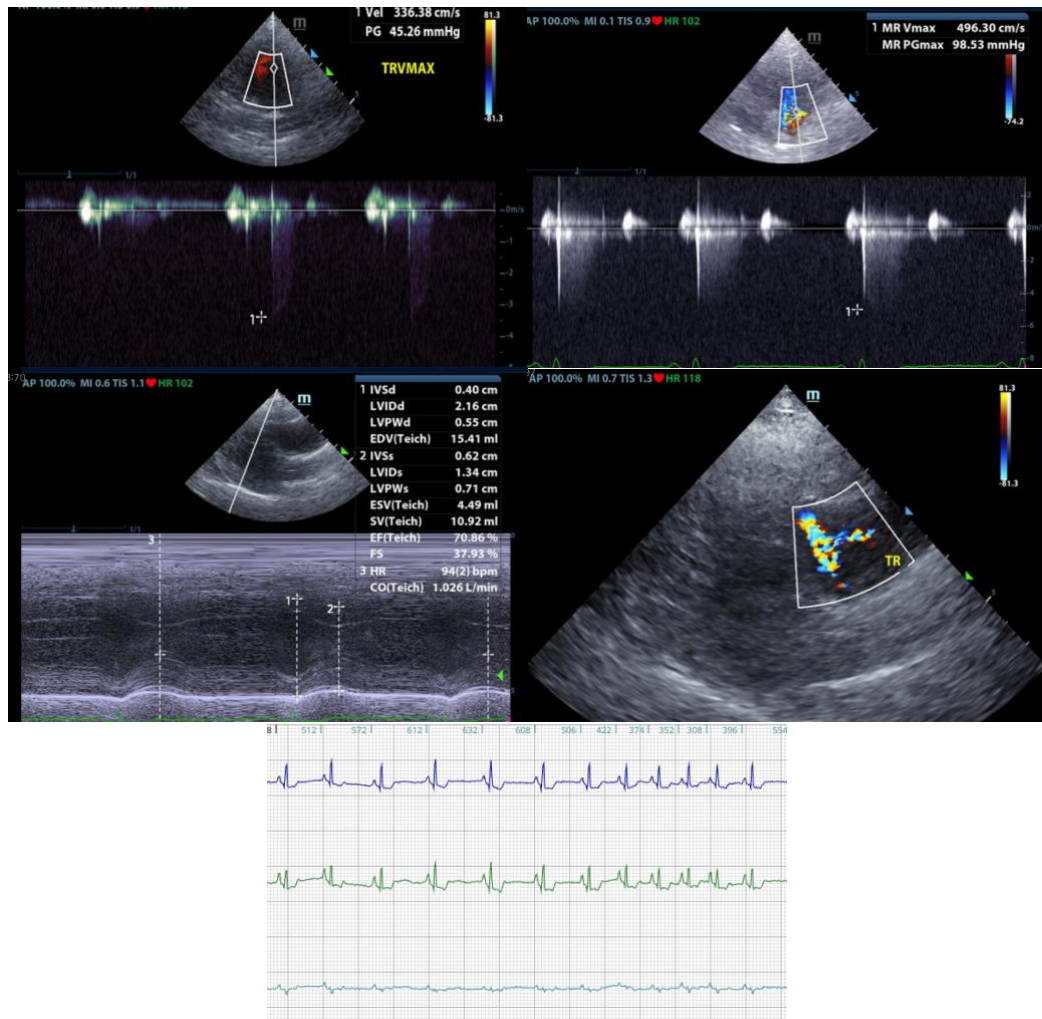
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

This patient continues to have degenerative valve disease affecting the mitral and tricuspid valves, ACVIM stage B1. I would recommend that this patient have a recheck echocardiogram in 9 - 12 months. No cardiac medications are warranted at this point in time. This patient should be closely monitored for increased resting respiratory rate > 40 breaths per minute, and if this is noted, then thoracic radiographs should be promptly performed. Anesthesia can be performed in this patient. Judicious use of IV fluids are warranted. This patient should avoid the use of dexmedetomidine, other alpha-2 agonists, and ketamine. The use of anticholinergics can be used in this patient in the face of bradyarrhythmias.



The information and recommendations provided are based on the images presented by the



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**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.

Camden Rouben DVM, DACVIM (Cardiology)

[info@SonoPath.com](mailto:info@SonoPath.com)