



PATIENT

Lulu Northwest Dog Project

SPECIES

Canine

BREED

Chihuahua

SEX

Spayed Female

AGE

12 Years

WEIGHT

~14 Pounds

INTERPRETED BY

Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Eugene AH

REFERRING VET

Dr. Wiktorowski

INVOICE

35066

DATE

12/23/25

PRESENTING CLINICAL SIGNS

History: Clinical Exam Findings: Seen at shelter- occasional cough, radiographs there showed cardiomegaly, she has a murmur ABNORMAL Labwork Values none For ECHO Only: Blood Pressure will obtain today HR/RR/BP: will obtain today Is there a Heart Murmur? If so, please grade. just listed as murmur on shelter paperwork Current Medications pimobendan 2.5mg BID, Doxycycline 50mg BID

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)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	6.56	3.28	1.8	1.93	55.17	--	NM
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)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	--	1.01	Overest	6.36	4.2	2.9	1.3

ECG Interpretation

The rhythm appears tachycardic and irregular. There are no consistent p-waves identified. There is significant baseline artifact. Rhythm diagnosis: atrial fibrillation.

Cardiac Presentation

The mitral valve leaflets are moderately thickened with moderate mitral regurgitation posteriorly directed. There is moderate prolapse of the mitral valve leaflets. The left atrial size is severely increased. Left ventricular dimensions are normal but meet epic criteria and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size with mild tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and mild to moderate evidence of pulmonary hypertension based upon tricuspid regurgitant velocities. The 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 is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS



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- Irregular rhythm, rule out atrial fibrillation
- Degenerative valve disease, ACVIM stage B-2
- Severe left atrial enlargement
- Mild to moderate pulmonary hypertension that does not require therapy

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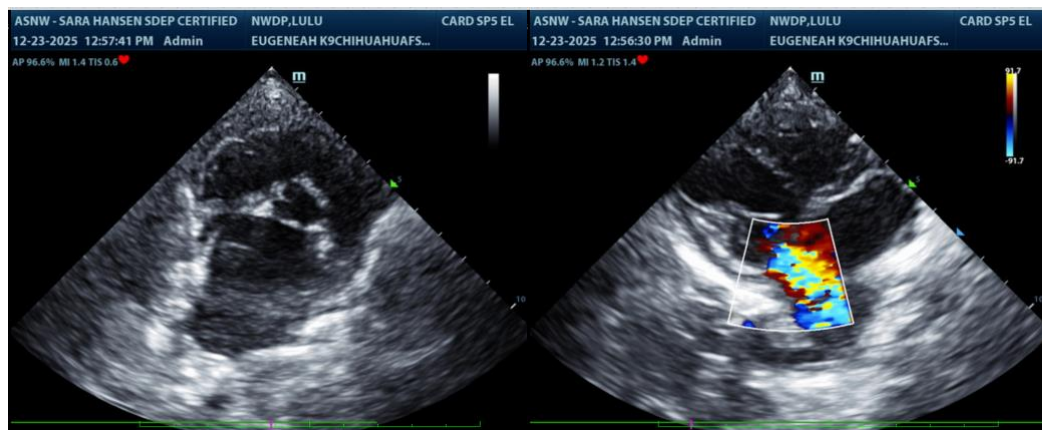
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has an irregular rhythm that appears tachycardiac and is concerning for atrial fibrillation. Recommend starting antiarrhythmic therapy diltiazem, 30 mg tablets, ¼ of a tablet every 8 hours is preferred, due to the patient size. Recommend continuing pimobendan at the current dose. Ideally, a Holter monitor would be performed in about 3-4 weeks to monitor the response to treatment and ensure additional antiarrhythmic therapy is not needed. Due to the severity of the patient’s cardiac disease, I would recommend referral to a veterinary cardiologist. The cough could be multifactorial, but I recommend the patient is heartworm negative. If the cough persists, can also consider cough suppression, as long as there is no evidence of cardiogenic pulmonary edema on the chest radiographs performed. Preferred cough suppression includes hydrocodone versus Lomotil, at a dose of 0.2 mg/kg twice daily. Recheck echocardiogram is recommended in 4-6 months, sooner if the patient is decompensating.

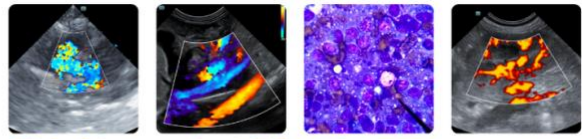
The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated.

Elective anesthetic procedures are ideally avoided due to the patient’s increased anesthetic risks.



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.



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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.

Sara Brethel DVM, DACVIM (Cardiology)

info@SonoPath.com