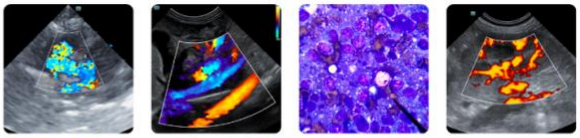

SonoPath www.carolinavetmobile.com info@carolinavetmobile.com 800.808.5948

PATIENT

Lucy Vandiver

SPECIES

Canine

BREED

Mixed Breed

SEX

Spayed Female

AGE

12 Years

WEIGHT

50.2 Pounds

INTERPRETED BY

Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Kathleen Byrnes

HOSPITAL NAME

Shallowford AH

REFERRING VET

Dr. Eads

INVOICE

35390

DATE

1/13/26

PRESENTING CLINICAL SIGNS

History: Recheck Comprehensive Double Cavity 3/6/25 Currently on Pimobendan, Furosemide, Diltiazem, Enalapril rdvm doing LDDST today.

Abnormal PE/Chem/CBC/UA Results: BUN 55, ALT 198, ALKP 1371, SDMA 19.5, Amylase 1153, K+ 6.5, NA/K 23, NA 149, Urinalysis Protein 3+ usg 1.014 ACTH Stim 1/10/26 Pre 4.8, Post 16 March 2025 Bile Acids Pre 1.2, Post 4.9

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	7.04	3.48	Underest	1.84	45.16	76.54	--
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	NM	1.91	1.25	22.72	--	4.61	2.53

ECG Interpretation

The rhythm is sinus with occasional isolated ventricular premature complexes.

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 internal dimensions during diastole are increased and systolic function is preserved in the face of mitral regurgitation. There is mild right atrial enlargement with mild tricuspid regurgitation. There is billowing of the tricuspid valve leaflets and mild 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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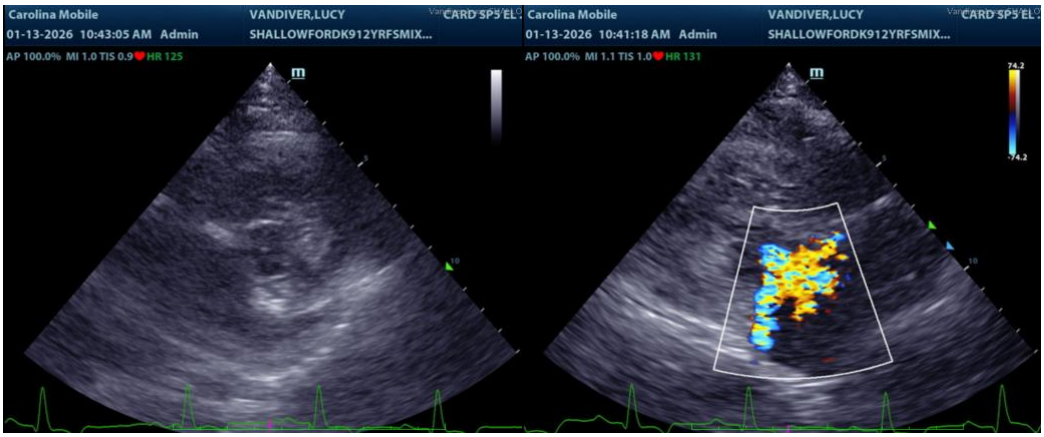
- Degenerative valve disease
- Severe left atrial enlargement
- Left ventricular dilation
- Degeneration of the tricuspid valve
- Mild pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has degenerative valve disease. With the previous report in March of 2025, the patient had not been in congestive heart failure at that time. However, the patient is on diuretic therapy. If there has been an episode of increased breathing rates and/or documented pulmonary edema, then the patient has progressed to stage C. There is a reported Azotemia with an elevated BUN and SDMA. Depending on the patient's clinical signs and breathing rates at home, can consider a 15-20% reduction in diuretic therapy (doses are unknown). I recommend continued pimobendan and ensuring the patient is receiving Vetmedin rather than compounded, as there has been significant progression in left atrial size when compared to the previous evaluation performed. It is unknown why the patient is currently on diltiazem therapy. No supraventricular arrythmias were identified during this evaluation. VPCs are present, but they are isolated. I recommend performing a Holter monitor, to evaluate the severity to the arrythmias and determine if additional antiarrhythmic therapy is needed. If a previous supraventricular arrhythmia has not been identified, then diltiazem therapy is not needed. I recommend ensuring the patient is normotensive. 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. The enalapril therapy can be continued especially in the face of the patient's reported proteinuria. However, if the kidney values are worsening then I would consider reducing and/or stopping the ace inhibitors to help with the kidneys. I also recommend consulting an internist especially with the patients reported ultrasound findings. As far as if the patient truly has had an episode of congestive heart failure, I also recommend starting spironolactone at a dose of 2.0 mg/kg once daily. A recheck echo is recommended in 6 months. If not pursuing a Holter monitor, a recheck ECG should be done as well. Note, the potassium should be reassessed prior to starting spironolactone, especially given the increased value reported.



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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.

Sara Brethel DVM, DACVIM (Cardiology)

info@SonoPath.com