



PATIENT

Dante Delet

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

10 Years

WEIGHT

15 pounds

INTERPRETED BY

Camden Rouben,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Dr. Gabriel Ferrer

HOSPITAL NAME

Pulse Pet Ultrasound
Services

REFERRING VET

Dr. Jose Gonzalez

INVOICE

13197

DATE

01/16/26

PRESENTING CLINICAL SIGNS

Presented for an recheck echocardiogram for evaluation of pericardial effusion. Last echocardiogram was done on Dec 30th, 2025 (16 days ago) along with an abdominal ultrasound. At that visit pt had pericardial effusion and during that time 52 mls of non-coagulated blood was removed and previously at rDVM ascites was removed by abdominocentesis. The previous echocardiogram had a suspicious of a mass on the Right AV groove.

Abnormal PE/Chem/CBC/UA Results: Previous echocardiogram attached as supporting documents Pericardiocentesis: Today Removed 120 mls of non-coagulated blood. Sample was given to rDVM for fluid analysis. No abdominal effusion was seen today.

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 (mm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6 cm
PATIENT	--	--	NM	1.44	22	46	6.5
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 (mm)	LVIDs Avg; 2D and m-mode short axis (mm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	NM	0.83	0.76	6.81	--	25.2	19.7

Cardiac Presentation

The mitral valve leaflets are normal and there is no mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size subjectively appears equivocally distended. Left ventricular systolic function in short axis M-mode subjectively appears at the high end of normal or equivocally dysfunctional, otherwise in two dimensional projections appears normal. The diastolic function appears within normal limits. There is normal right atrial size with collapse of the right atrium in diastole. There is no evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on today's evaluation. 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. There is evidence of significant pericardial effusion globally. There is an area at the right auricular appendage that appears hyperechoic. A mass cannot be ruled out just based off of this study alone.



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ULTRASONOGRAPHIC FINDINGS

- Based off of the images provided, this patient has significant pericardial effusion of unknown etiology. There is equivocal left ventricular systolic dysfunction and equivocal left atrial enlargement.
- This patient has pericardial effusion of unknown etiology.

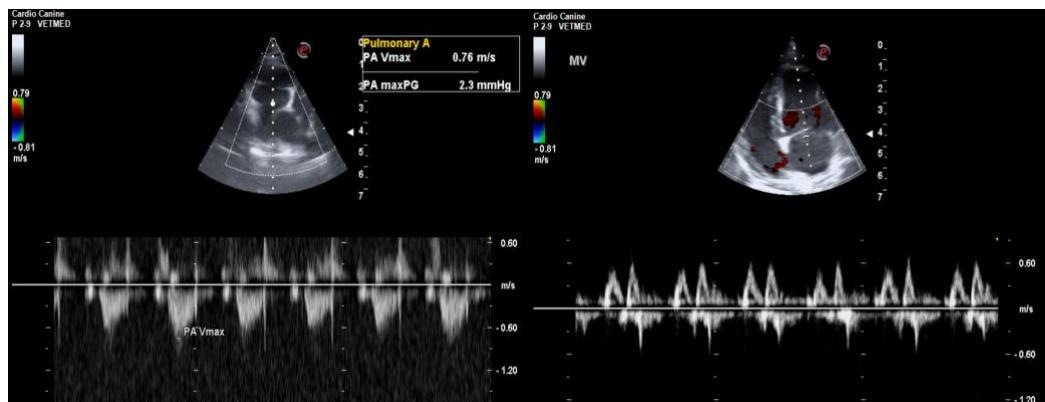
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

It is strongly recommended that referral to a veterinary cardiologist for additional imaging or recommendation to perform a thoracic CT scan to rule out intracardiac masses or masses of the pericardium or cardiac masses.

Pimobendan can be considered to improve the systolic function or consider performing a pericardiocentesis at this point in time and then recheck imaging via echocardiogram one week later to assess the left ventricular systolic function, left atrial size and the collapse of the right ventricle.

A recheck echocardiogram is strongly recommended no matter what in three months to assess for worsening pericardial effusion after the pericardiocentesis. This patient should be closely monitored for increased resting respiratory rate and effort at home if not already doing so, acute lethargy, weakness, syncopal events, overt coughing.

Anesthetic procedures should be well tolerated. Judicious perioperative fluid rates are recommended due to potentially increased left atrial size. Medications like dexmedetomidine and other alpha-2 agonists are best avoided. Ketamine is also best avoided. If needed, anticholinergics can be used in the face of a clinically significant bradyarrhythmia. A blood pressure assessment should be performed in this patient. Additional therapies include potentially considering adding supplements such as yunnan baiyao.





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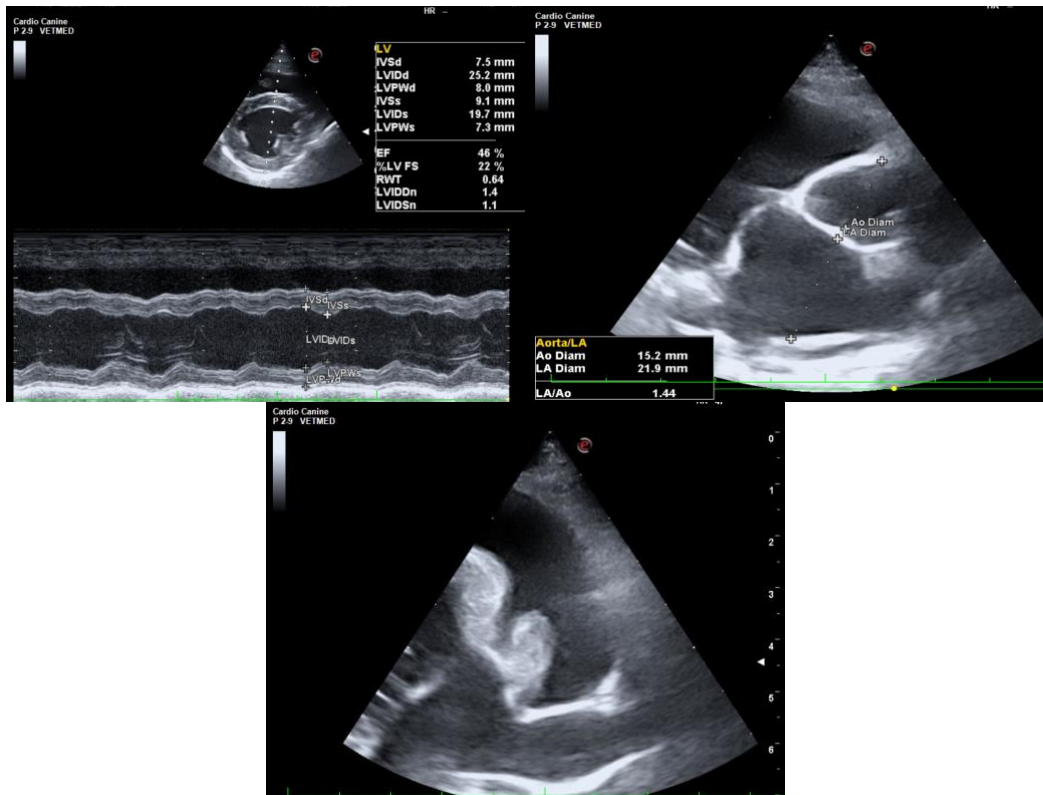
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Camden Rouben, DVM, DACVIM (Cardiology)

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