



PATIENT

Mulan Pagan

SPECIES

Canine

BREED

Mixed

SEX

Spayed Female

AGE

12 Years

WEIGHT

15.7 pounds

INTERPRETED BY

Camden Rouben,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Dr. Gabriel Ferrer
DVM

HOSPITAL NAME

Pulse Pet Ultrasound
Services

REFERRING VET

Dra. Marilyn Davila

INVOICE

12142

DATE

11/07/25

PRESENTING CLINICAL SIGNS

Presented as a referral for an abdominal ultrasound to evaluate a heart murmur. Pt was diagnosed with a heart murmur recently, but pt is not clinical (only some hacking cough when drinking water) and doing well at home. Pt is currently on Denamarin. Echocardiogram to determine if need cardiac medications.

Abnormal PE/Chem/CBC/UA Results: PE: 2-3/6 systolic HM Bloodwork attached as supporting documents.

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	5.81	3.07	NM	2.03	51	83	1.6 mm
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	142	0.71	0.9	7.1	28.7 mm	33.7 mm	16.6 mm

Cardiac Presentation

Based off of the images provided, the mitral valve leaflets are moderately thickened with moderate mitral regurgitation posteriorly directed. There is no significant prolapse of the mitral valve leaflets. The left atrial size is moderately increased. The left ventricular internal dimensions during diastole are increased. Systolic function is preserved in the face of mitral regurgitation. Normal right atrial size with mild tricuspid regurgitation. No significant prolapse of the tricuspid valve leaflets. There is mild evidence of pulmonary hypertension based solely on the tricuspid regurgitation velocities alone. 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. No evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery appears normal. No evidence of pleural effusion, pericardial effusion or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Patient has degenerative valve disease, ACVIM stage B2.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS



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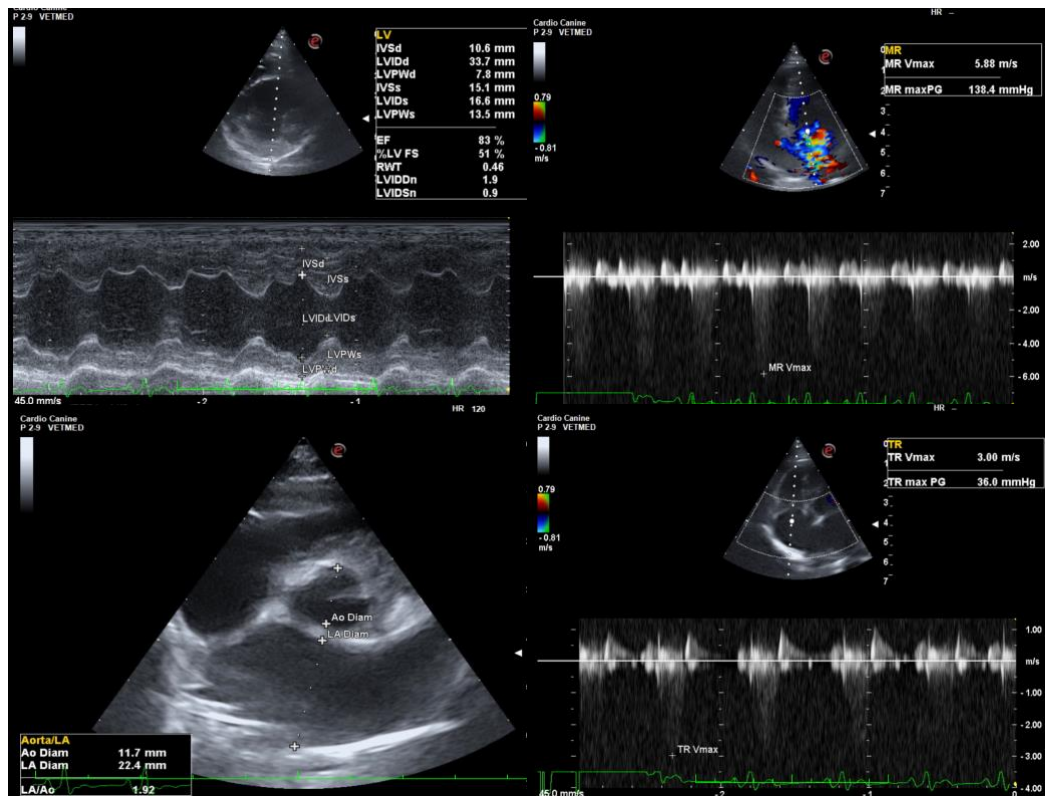
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Pimobendan is recommended at 0.25 to 0.30 mg/kg by mouth every 12 hours. This will be a life-long therapy. Recheck echocardiogram is recommended in 6 months to monitor the condition since starting Pimobendan. A sooner recheck is recommended if the patient develops cardiovascular clinical signs or if the heart murmur worsens in intensity.

Activity restriction is not necessary. The client should start monitoring resting respiratory rate at home if not already doing so. Resting respiratory rate should be less than 35-40 breaths per minute. When the patient is resting or sleeping if the breathing rates are increasing, thoracic radiographs are recommended. Recommend obtaining a blood pressure on the patient to ensure it's less than 160 mm of mercury. If the patient's blood pressure is elevated, then follow ACVIM guidelines for systemic hypertension.

If the patient requires general anesthesia, judicious perioperative fluids are recommended due to increased left atrial size. Medications like alpha 2 agonist and Ketamine are best avoided. If needed, anticholinergics can be used in the face of clinically significant bradyarrhythmia.



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.



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