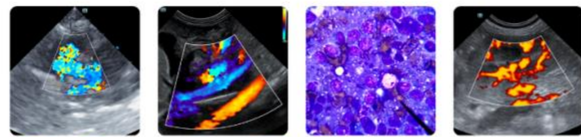


PATIENT

Emma Carmelitano

SPECIES

Canine

BREED

Grey Hound

SEX

Spayed Female

AGE

10 Years 11 Months

WEIGHT

66 Pounds

INTERPRETED BY

Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Rebecca Hamilton

HOSPITAL NAME

Wyckoff VH

REFERRING VET

Dr. Scott

INVOICE

35896

DATE

12/15/25

PRESENTING CLINICAL SIGNS

History: 2/6 HM last echo 11/18/24

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

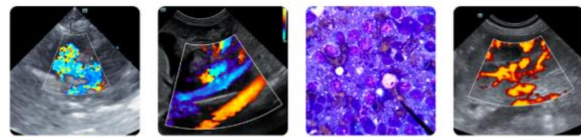
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.4	NM	1.44	1.32	31.48	--	NM
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (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	--	2.37	1.12	30	5.7	5.4	3.7

Cardiac Presentation

The mitral valve leaflets are mildly thickened with mild mitral regurgitation posteriorly directed. There is no prolapse of the mitral valve leaflet. The left atrial size is enlarged on long axis images. Left ventricular internal dimensions are dilated and there is mild left ventricular systolic dysfunction. There is normal right atrial size with mild tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no 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 trace aortic insufficiency. There is no evidence of pulmonic 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. On subcostal images, the liver has two very distinct echogenic appearances. Recommend further investigation into the patient's liver, considering an abdominal ultrasound and ensuring liver values are normal.

ULTRASONOGRAPHIC FINDINGS

- Degenerative valve disease, ACVIM stage B-2
- Mild left atrial enlargement on long axis
- Left ventricular systolic dysfunction
- Mild tricuspid regurgitation without evidence of pulmonary hypertension



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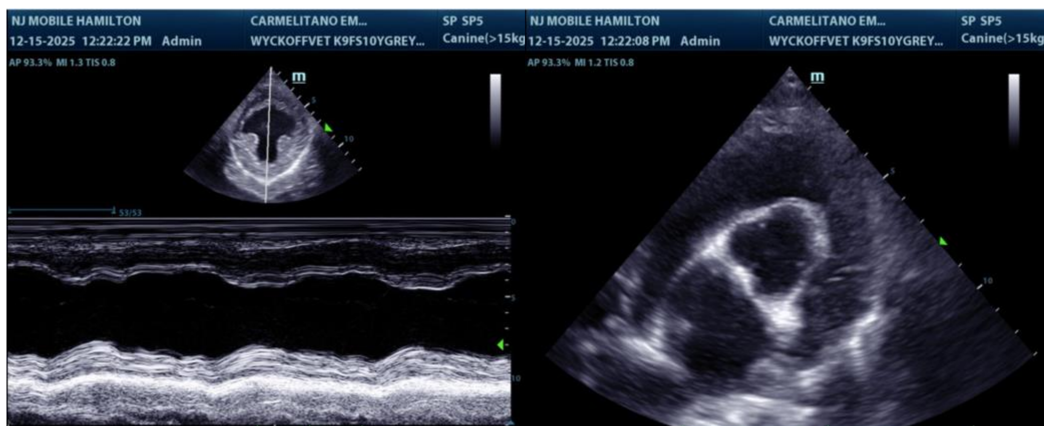
- Different echogenic appearances to the liver on subcostal images

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has degenerative valve disease and has advanced B-2 measurements with progressive ventricular measurements and left atrial enlargement on long axis images. Recommend starting pimobendan at a dose of 0.27- 0.32 mg/kg, and rechecking an echocardiogram in 4-6 months, sooner if the patient develops cardiovascular clinical signs. The cause for the change in appearance and echogenicity of the liver could be positional artifact; however, liver pathology cannot be ruled out and recommend ensuring the liver is within normal limits.

If anesthesia is needed, the patient does appear to be an adequate candidate, however, I recommend being on pimobendan for at least 1-3 weeks prior to elective procedures. Judicious perioperative fluids are recommended due to the 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 (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.



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)

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