



PATIENT

Frodo Messerly

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

17 Years

WEIGHT

9 Pounds

INTERPRETED BY

Sara Brethel, DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Andrea Nason

HOSPITAL NAME

Caravan Vet

REFERRING VET

Dr. Andrea Nason

INVOICE

35897

DATE

12/15/25

PRESENTING CLINICAL SIGNS

History: Frodo had an elevation in his proBNP above normal to 202 at his last wellness exam ~ 6 months ago. He also has chronic GI/suspected IBD and we're considering steroid therapy. Cardiac work up to evaluate if underlying heart condition and impact on steroid therapy and future dental/anesthesia. Chest radiographs and ECG attached.

Abnormal PE/Chem/CBC/UA Results: ProBNP 200 Blood pressure: 152 systolic Crea 1.5, SDMA 13, BUN 19 T4 2.2 ug/dL

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	4.09	NM	0.53	1.44	0.49	51.38	--
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT		1.44	--		--	~0.5	NM
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

LVIDs: 0.7

Chest Radiographic Interpretation

The cardiac silhouette is within normal limits. The aorta is prominent. The pulmonary vasculature is normal. There is an increased soft tissue opacity noted in the caudal lung field, just by the caudal vena cava, at the level of the 8th and 9th ribs, in both the right and left lateral projection, not identified on the VD projection provided. There is no evidence of cardiogenic pulmonary edema. Consider submission to a veterinary radiologist for further interpretation of the chest radiographs.

ECG Interpretation

Sinus rhythm.

Cardiac Presentation

The mitral valve leaflets are normal and there is no mitral regurgitation. The left atrial size is normal. There is no evidence of systolic anterior motion of the mitral valve and no evidence of a left



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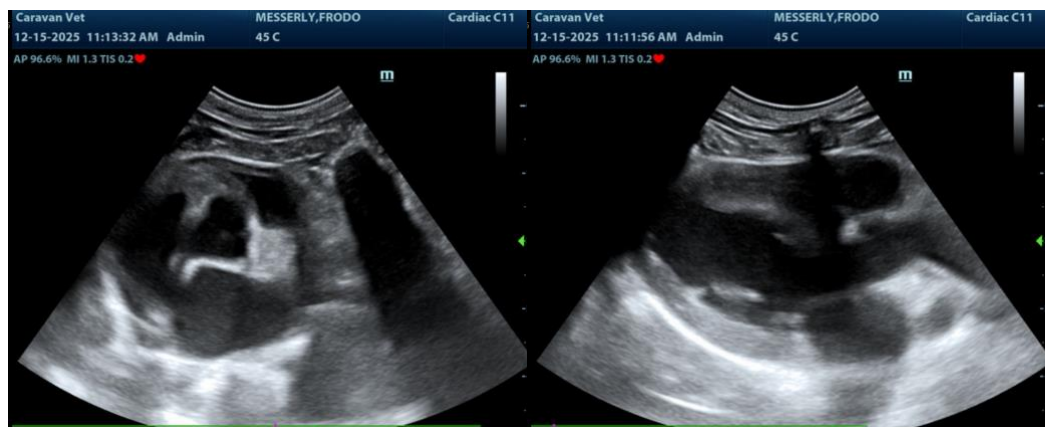
ventricular outflow tract obstruction. Left ventricular systolic and diastolic function is within normal limits. There is no evidence of left ventricular concentric hypertrophy. There is normal right atrial size without evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on the images provided. The right ventricle appears normal in structure and function subjectively. 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

- Structurally normal heart
- Normal sinus rhythm
- Increased opacity on the lateral projections of the chest radiographs

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The heart is structurally normal. The elevated proBNP is likely due to the underlying azotemia. Based upon the images provided, there is no contraindication to steroid therapy, however, always recommend monitoring for any signs of worsening clinical signs or any respiratory signs, especially once starting steroid therapy. Can consider submission of the radiographs to a radiologist for further interpretation and evaluation of that soft tissue opacity. Consider a recheck echocardiogram in 10-12 months, as the patient can develop cardiac disease, as they continue to age.





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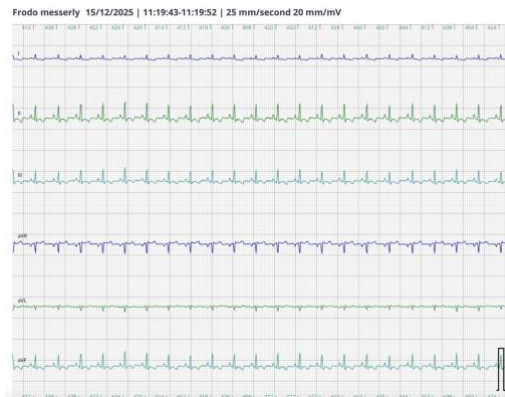
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Sara Brethel DVM, DACVIM (Cardiology)

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