



## PATIENT

Clementine Watson

## SPECIES

Feline

## BREED

DSH

## SEX

FS

## AGE

13 years

## WEIGHT

7.5 lbs.

## INTERPRETED BY

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

## IMAGING PERFORMED BY

Dr. Sorbo

## HOSPITAL NAME

Cambridge  
Veterinary Care

## REFERRING VET

Dr. Sorbo

## INVOICE

14885

## DATE

8/23/23

## PRESENTING CLINICAL SIGNS

Presenting for check of halitosis.

Abnormal PE/Chem/CBC/UA Results: Weight loss of 15% in 2 years. Gallop rhythm on auscultation. Marked otitis AU with rod infection and likely ear mites (not able to confirm). Periodontal disease (mild to moderate). Extremely high FAS - on gabapentin. Lab work is pending.

## 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		NM	0.46	1.6	0.46	45	80
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT		1.6	1.6				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							

## Cardiac Presentation

The echocardiogram in this patient demonstrated borderline increased to mild bulbous **left atrial** dimension yet overall normal structure. Chamber volume and blood echogenicity were overall within normal limits. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. No overt MR was noted on Doppler. The **left ventricle** presented normal free wall and septal thicknesses with linear contour. The **myocardium** presented some echogenic remodeling consistent with expected age-related change. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated overtly normal laminar flow and subjectively unremarkable structure. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated expected findings for this age patient. No overt TR was noted on Doppler. The **right ventricle** was of normal size (1/3 diameter of LV), echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure and overall normal diameter with laminar RVOT outflow. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window. There was no evidence of significant arrhythmogenic disease.



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## ULTRASONOGRAPHIC FINDINGS

- Borderline increased to subjective mild bulbous LA dimension
- Normal LV with mild myocardial remodeling
- Normal RA/RV

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, there was no evidence of significant structural or functional cardiomyopathy, including no evidence of HCM criteria, significant left or right heart chamber enlargement, overt arrhythmia, or clinical pulmonary hypertension. The subjective mild increased to bulbous LA dimension is of unclear clinical significance with overall compensated cardiac presentation yet potential for emerging cardiomyopathy could be possible.

At this stage, there is no overt indication for cardiac medications. ECG assessment is suggested if concern for arrhythmia. Sonographic monitoring is recommended for additional prognosis. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs consistent with heart disease arise. Assessment of systemic BP and T4 levels, if not recently done, is recommended.

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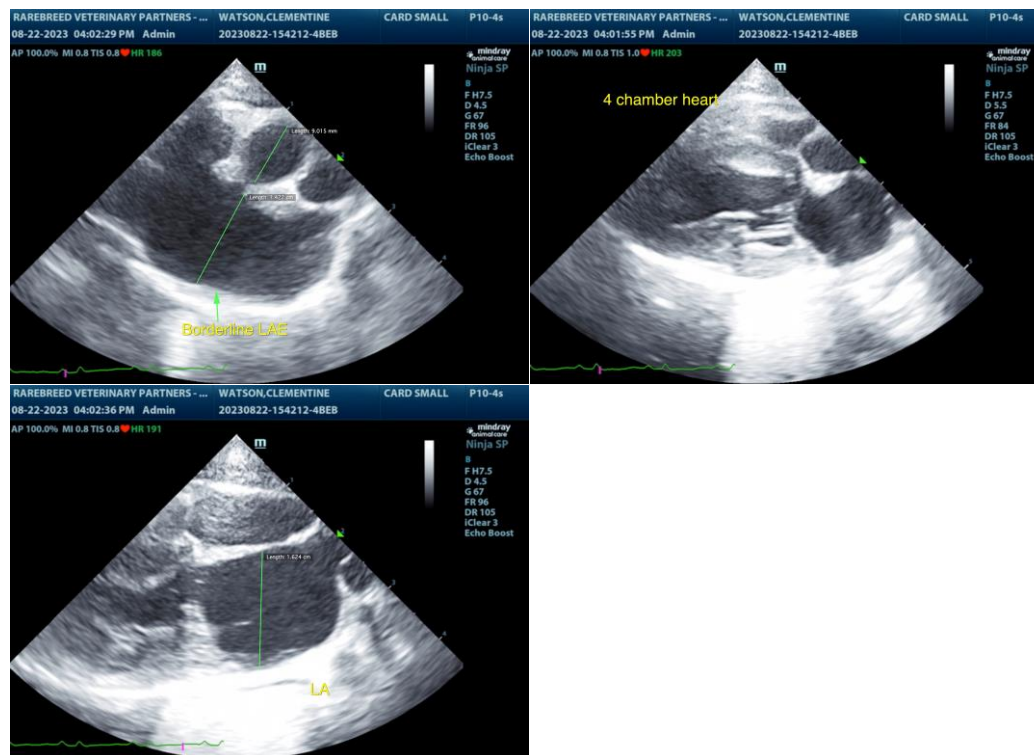
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



**PATIENT**

Clementine Watson

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.

**SPECIES**

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**info@SonoPath.com**

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