

PATIENT

Edgar Winter
McBride

SPECIES

Feline

BREED

DLH

SEX

MN

AGE

13 years

WEIGHT

9.3 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Meredith Swart

HOSPITAL NAME

Swart Veterinary
Imaging

REFERRING VET

Meredith Swart

INVOICE

17338

DATE

7/21/23

PRESENTING CLINICAL SIGNS

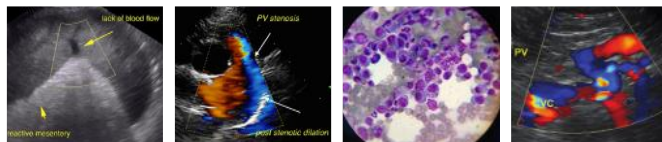
Low grade sternal murmur. Labwork overall normal but BNP slightly elevated at 130 (high end of normal is 100). Echo is pre-op for dental with extractions. No clinical signs at home
Abnormal PE/Chem/CBC/UA Results: Labwork, including T4, was WNL other than BNP of 128 (high end 100)

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	0.42	1.3	0.41	46	81
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	1.4	1.25	1.3	1.1	1.0	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 enlarged **left atrial** size based on 3 separate LA measurement methods. The cranial and caudal **mitral** valve leaflets presented mild thickening with normal kinetics. No overt or significant MR was noted on Doppler. The **left ventricular** septum and free wall revealed normal thicknesses, reduced contractility and mildly reduced left ventricular volume with subjective reduced diastolic filling. Yet some echogenic remodeling of the septum and free wall was present, this does not appear to be a functional issue at this point as evidence of the normal fractional shortening and most suggestive of some level of mild myocardial fibrosis which is essential age-related change. The **left ventricular outflow** tract demonstrated overtly normal laminar flow with normal measured LVOT velocity. The **right atrium** and auricle revealed increased size and normal content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Normal measured RVOT velocity was noted. No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.



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ULTRASONOGRAPHIC FINDINGS

- Overall normal cardiac structure / function with mild LV myocardial remodeling
- Normal LA / RA

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant structural or functional cardiomyopathy including no evidence of clinical issues such as HCM criteria, left or right heart chamber enlargement, LV systolic dysfunction, or overt significant valvular insufficiencies. Assuming no evidence of volume changes such as dehydration or anemia, a physiologic or flow murmur is considered probable although a small non-visualized flow abnormality remains possible. Regardless, the lack of structural or functional cardiomyopathy indicates that the hemodynamic effects of the murmur at this stage are minimal.

No indication for cardiac medications. Conservative monitoring of the murmur is recommended. No anesthetic contraindications. Recheck echocardiogram is suggested in 8-12 months, sooner if clinical signs arise or if murmur intensity increases.

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.

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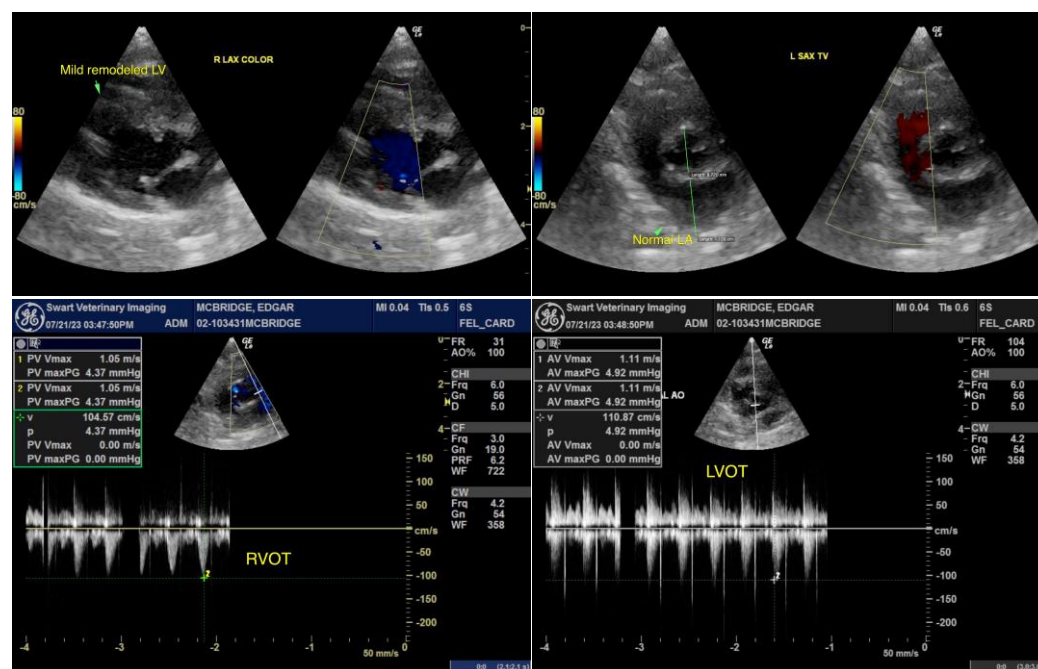
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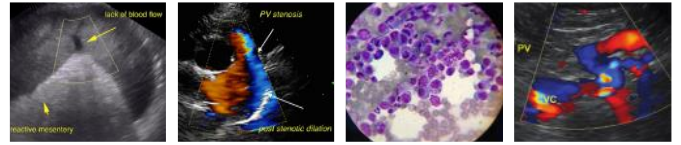
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



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