

PATIENT

Poe Bloemendaal

SPECIES

Feline

BREED

DLH

SEX

MN

AGE

12 years

WEIGHT

11 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Ebersole

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Fortin

INVOICE

15019

DATE

9-28-22

PRESENTING CLINICAL SIGNS

Recent (past week) episodes of mydriasis and poor vision at night Hypertension noted 9/21/22, values higher than previous readings. Started clopidogrel this past weekend.

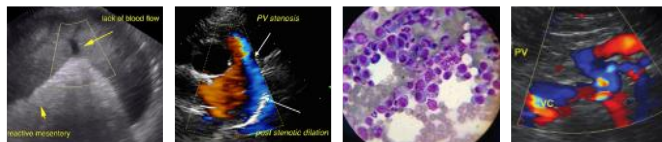
Abnormal PE/Chem/CBC/UA Results: PE: Grade 2/6 systolic murmur (historic) BP: 193/139 (160), 217/143 (180), 208/128 (174). BW: SDMA 17, Creat 3.2, BUN 44, ProBNP 526 USG 1.013, T-4 3.2 (on Methimazole)

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	0.56	1.68	0.54	53.6	88.4
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	1.1	1.0	1.2	1.5	1.4	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 normal **left atrial** size based on 3 separate LA measurement methods. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. No overt MR was noted on doppler. The **left ventricle** presented normal septal and free wall thicknesses with mild a linear contour and without evidence of increased LV volume or restriction. The **myocardium** presented overall normal echogenicity with evidence of mild myocardial remodeling. Mildly prominent to remodeled papillary muscles were noted. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated subjective mild dynamic to turbulent systolic flow with overall normal subjective structural integrity. Mild AI was present on doppler. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. No overt TR was noted on doppler. 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). No



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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.

ULTRASONOGRAPHIC FINDINGS

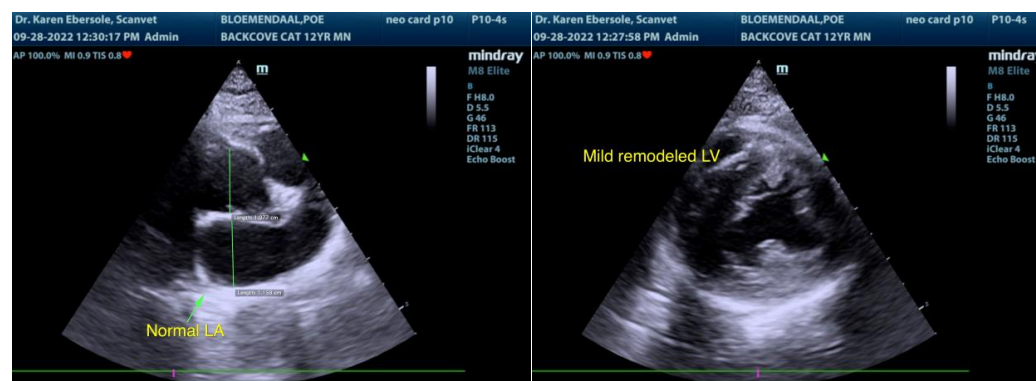
- Overtly normal cardiac structure and function with mild LV myocardial remodeling
- Normal LA
- Mild aortic insufficiency / likely secondary to hypertension

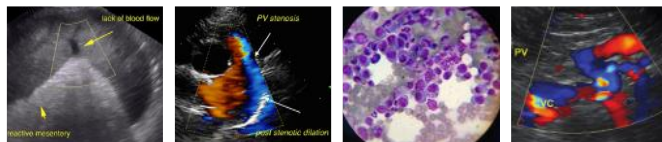
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, no evidence of significant structural or functional cardiomyopathy including no evidence of primary or secondary HCM criteria. A definitive cause of the murmur in this patient was not obvious.

The aortic insufficiency is not likely audible with potentially some contribution to the murmur secondary to turbulent LVOT outflow. However, normal measured LVOT velocity was noted. No evidence of systolic anterior motion of the mitral valve. In the absence of volume changes and/or dehydration, a benign physiologic flow murmur is considered likely. Regardless, the hemodynamic effects of the murmur appear to be low without evidence of left or right heart chamber enlargement.

No indication for cardiac medications. Without evidence of structural or functional cardiomyopathy, the hypertension in this patient appears to be noncardiogenic in origin. Full abdominal ultrasound is warranted to assess for evidence of intraabdominal pathology as a contributing factor. If not currently instituted, Amlodipine at the appropriate dose with monitoring of blood pressure response may be considered.





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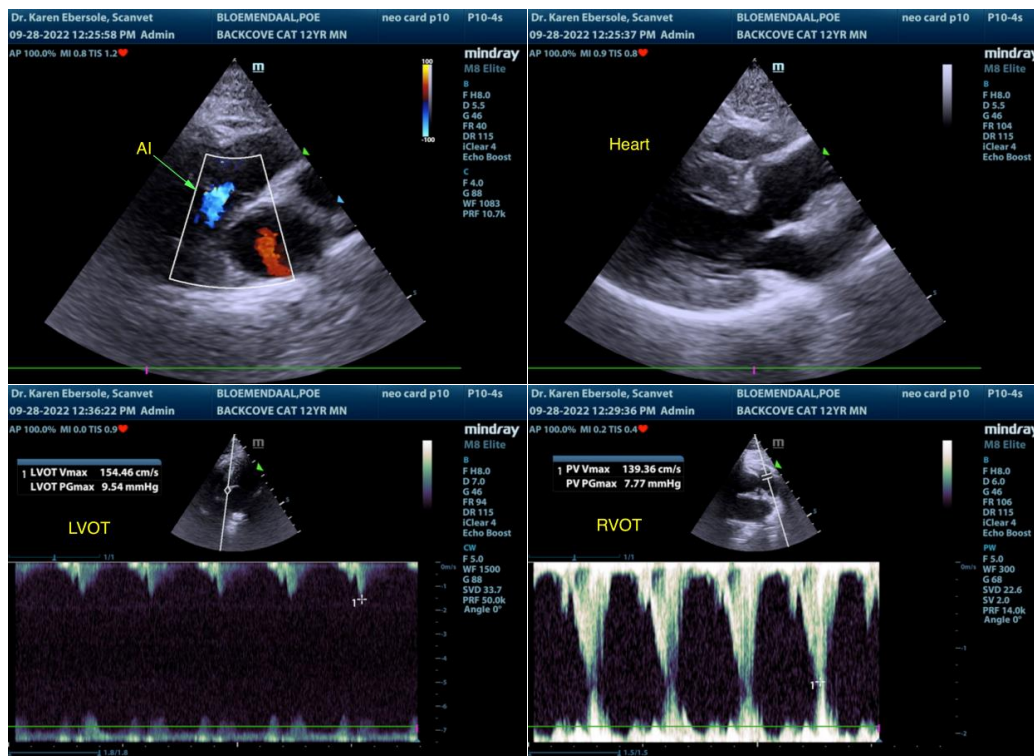
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com