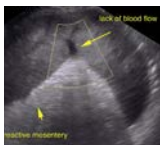
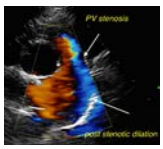
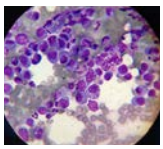
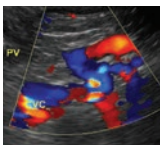
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Tom Nobbe

SPECIES

Feline

BREED

DLH

SEX

Neutered Male

AGE

9 Years

WEIGHT

13.75 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Karen Ebersole, DVM, DABVP (Canine/Feline Practice)

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Norman

INVOICE

47099

DATE

5/3/23

PRESENTING CLINICAL SIGNS

Elevated proBNP, planning anesthesia for a dental. Feeding raw food. Hx: "asthma-like condition". Gabapentin PO for sedation.

Abnormal PE/Chem/CBC/UA Results: PE: L eye: mature cataracts with displaced lens, R eye: glaucoma, congenital deformity, retinal degeneration OU; severe tartar. proBNP 1,500

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		1.41	0.54	1.58	0.46	38	69
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	1.5	1.3	1.67		1.0	0.8	NM

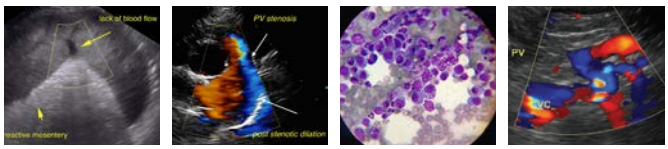
Adapted from June Boon,Veterinary Echocardiography,1998
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

Cardiac Presentation

The echocardiogram in this patient demonstrated normal to borderline promient **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 on doppler. The **left ventricle** presented normal septal and free wall thicknesses with maintained linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate yet subjectively decreased as evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. 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. 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 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. Possible subjective bradycardia compared to expected heart rate, unless sedation was used.

ULTRASONOGRAPHIC FINDINGS

- Subjective borderline increased LA size
- Normal LV dimension with adequate yet subjective mild decreased LV contractility
- Normal RA/RV



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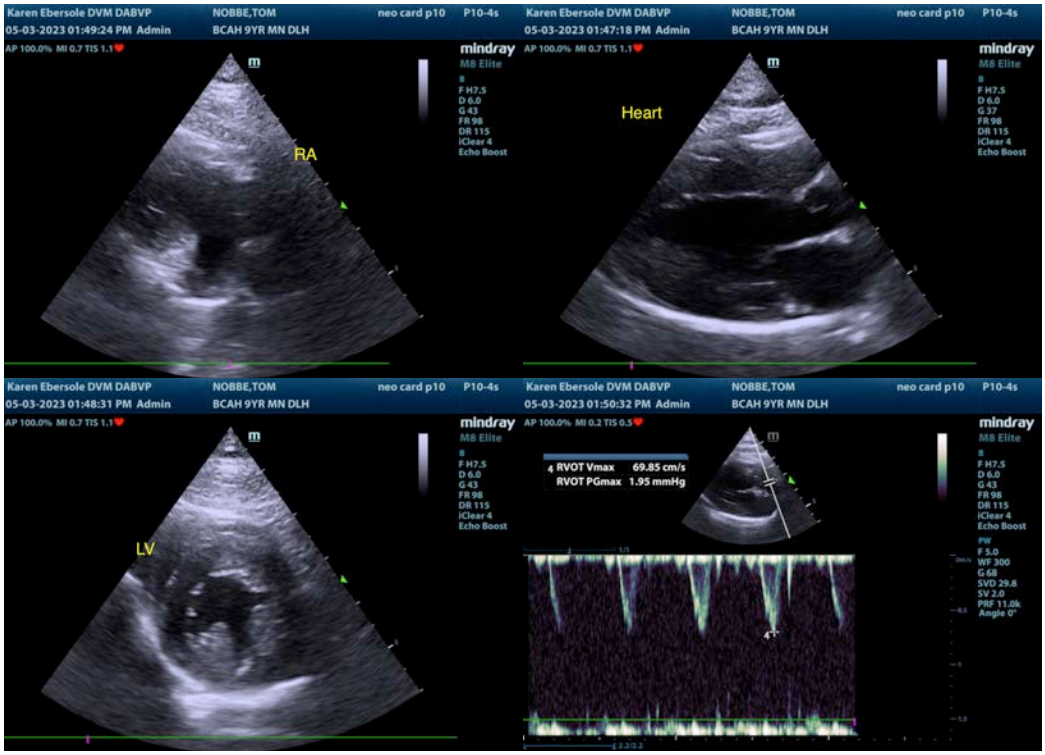
- Possible bradycardia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, compensated heart without evidence of significant structural or functional cardiomyopathy. The subtle mentioned cardiac changes as well as potential for bradycardia are non-specific without evidence of significant clinical issues such as HCM criteria, significant LV systolic dysfunction, clinically significant left or right heart chamber enlargement, or evidence of clinical pulmonary hypertension. Not knowing the ingredients of the reported raw diet, taurine deficiency could be a consideration in this patient unless taurine is being supplemented.

Taurine levels are recommended if clinically indicated. Alternatively, diet change to include taurine supplementation and echocardiographic monitoring would be reasonable. No overt indication for cardiac medications. Anesthetic risk based on this presentation is considered mild pending recommend ECG, given potential for bradycardia, and assuming normal systemic BP. If anesthesia is required, the following anesthetic protocol is suggested with precautions regarding fluid administration advised.

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. Recheck echocardiogram recommended in 6 months, sooner if clinical signs consistent with heart disease arise, or if clinically indicated.



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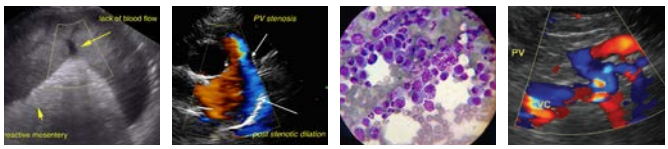

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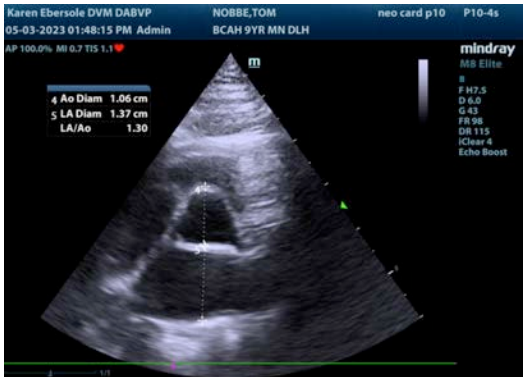

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

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