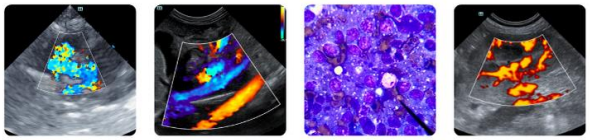


PATIENT

George Bailey Kolling

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

9 years

WEIGHT

7.5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Arielle Roldan CVT

HOSPITAL NAME

Milford AH

REFERRING VET

Sean Grasso DVM

INVOICE

10658

DATE

2/25/26

PRESENTING CLINICAL SIGNS

History:

- Presented today for dental procedure, abnormalities noted on bloodwork. Owner reported he has not been eating well, lost weight.
- Known history of early renal disease - currently receiving porus one
- Newly diagnosed hyperthyroidism, worsening renal dz

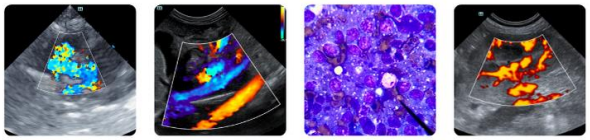
ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	**BODY WEIGHT**	**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	7.5 lbs	150	0.54	1.45	0.51	45	78
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	-	1.25	1.2		NM	1.0	-

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 2 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. No overt MR on Doppler. The **left ventricle** presented overall normal thicknesses with primarily linear contour and was not dilated nor restricted. The **myocardium** presented mild increased echogenicity without subjective evidence of significant fibrotic or ischemic disease. Mildly prominent papillary muscle was 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 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



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cranial **mediastinum and pericardial regions** were free of masses in the visible window. No evidence of overt arrhythmia was noted.

ULTRASONOGRAPHIC FINDINGS

- Overall normal cardiac structure / function with mild increased LV myocardial echogenicity and mildly prominent papillary muscle
- Normal LA

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no evidence of significant cardiomyopathy, i.e., definitive HCM criteria, left or right heart chamber enlargement or LV systolic dysfunction. Potential for emerging to early HCM criteria, given patient history, and once the patient is deemed euthyroid and normotensive, in conjunction with LV mild increased myocardial echogenicity and prominent papillary muscle, is possible. There is no indication for cardiac medications at this stage, given the normal LA dimension.

Echocardiographic monitoring is advised. Recheck echocardiogram is suggested in 6 months, sooner if uncontrolled hyperthyroidism or if clinical signs consistent with cardiac disease arise.

Anesthetic risk is considered mild: due to mild left atrial enlargement as noted on images presented, along with heart murmur.

1. However, judicious fluid administration is advised with careful RR/RE monitoring to screen for fluid overload.

Monitoring of blood pressure, SpO2, CO2, and auscultation of heart and lungs during anesthesia should be done during every procedure. If required, the following protocol is suggested.

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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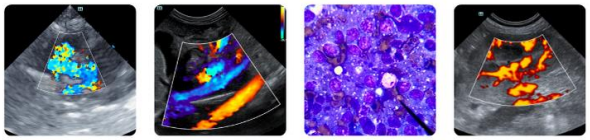

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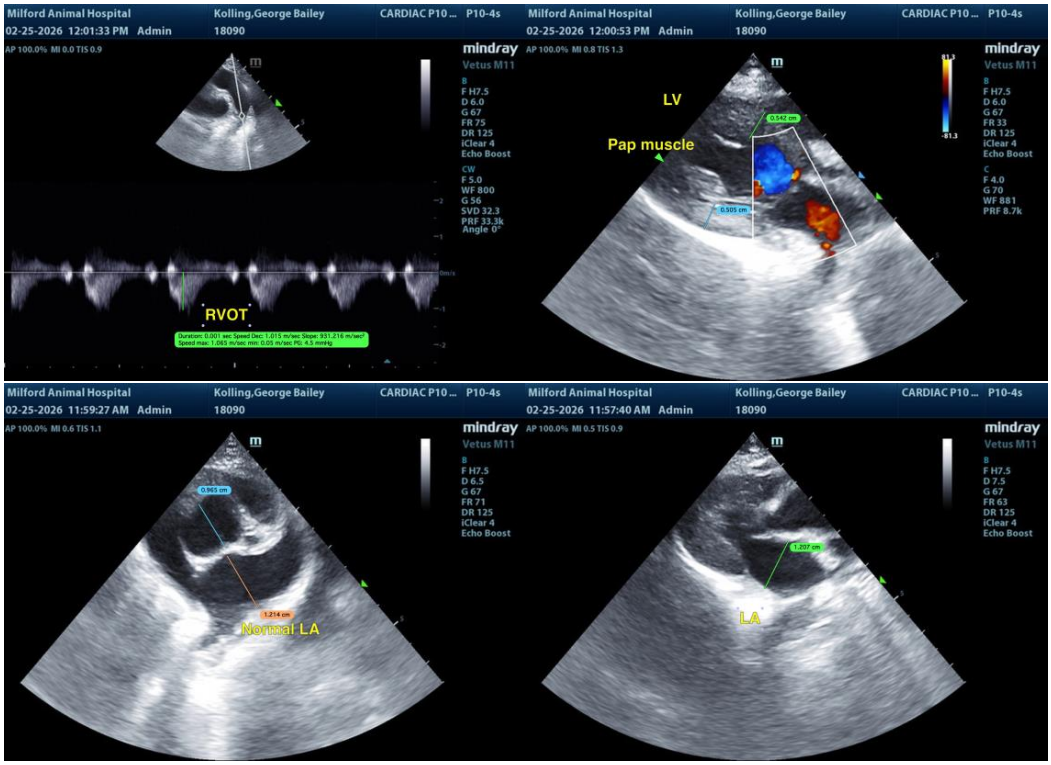

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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