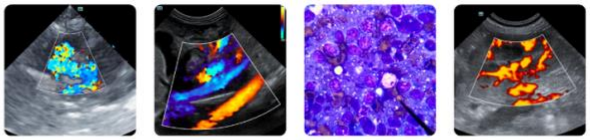


PATIENT

Nixxy Tate

SPECIES

Feline

BREED

DLH

SEX

Spayed Female

AGE

13 Years

WEIGHT

12 Pounds

INTERPRETED BY

Sara Brethel, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Ryan Leal

HOSPITAL NAME

Wellesey AH

REFERRING VET

Dr. Cecelia Dean

INVOICE

36840

DATE

4/27/26

PRESENTING CLINICAL SIGNS

History: Pt presents for workup of heart murmur in anticipation of a COHAT due to severe dental disease including tooth root abscessation. She has had several episodes of respiratory distress which appear to be stress related. Pt required consistent churu to allow for scanning. Pt on gabapentin for scan. Problem List: Cardiac disease, open etiology. Secondary respiratory compromise during stressful events. Dental disease, suspect periapical abscess with skin rupture. Car ride / vet visit FAS

Abnormal PE/Chem/CBC/UA Results: PE: BCS 7/9, 4/6 parasternal murmur, dental disease 4/4 Blood Pressure 160 (average doppler) CBC/Chem/T4/UA: pending results TXR in March 2026: 3V radiographs -- cardiomegaly, pleural fissure lines evidence but not effusive. Bronchial pulmonary pattern. Visible abdomen wnl. Radiographs attached for reference.

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	5.45	NM	0.51	1.42	0.69	47.18	--
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	NM	--	1.5		NM	~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							

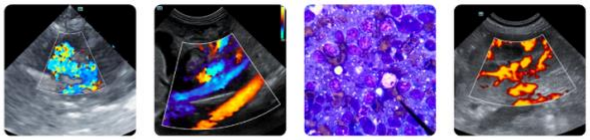
LVIDs 0.75, MR Vmax: ~3.0

Chest Radiographic Interpretation

The cardiac silhouette appears enlarged. There is concern for a possible pulmonary bulla identified on the left lateral image. However, this isn't corroborated on the VD image provided and may be artifact. Recommend considering submission to a radiologist and obtaining a straighter left lateral image.

Cardiac Presentation

On long axis, the left atrium appears mildly enlarged. The mitral valve leaflets are normal and there appears to be trivial evidence of mitral regurgitation. There is asymmetric concentric hypertrophy of the posterior wall. The right atrium is normal. The tricuspid valve is normal without evidence of tricuspid regurgitation. The right ventricle appears to have preserved systolic function subjectively.



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The aortic and pulmonic valves appear to have normal morphology. There is no evidence of aortic insufficiency. There's trace pulmonic insufficiency. Pulmonic outflow velocities appear normal. There is an area of diastolic flow distal to the pulmonic valve. The aorta appears normal. The pulmonary artery and associated branches appear prominent. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Left atrium, upper limits of normal to mildly increased on long axis assessment
- Mitral regurgitation
- Asymmetric concentric hypertrophy
- Trace pulmonic insufficiency
- Prominent pulmonary artery and branches
- Diastolic flow distal to the pulmonic valve

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has mild concentric hypertrophy of the posterior wall, which may represent early hypertrophic cardiomyopathy. Recommend ensuring blood pressure and thyroid hormones are normal given the patient's age. The left atrium appears at the upper limits of normal to mildly increased. There is evidence of mitral regurgitation. The pulmonary artery and associated branches appear dilated and there's a region of diastolic pulmonic flow. Given the appearance of the diastolic pulmonic flow and the appearance of the pulmonary artery and branches, a congenital defect such as a patent ductus or arteriosus cannot be ruled out. The cause of the patient's intermittent abnormal breathing is not entirely known. A cardiac cause still cannot be ruled out. There's no evidence of active congestive heart failure based upon the images provided. There may be underlying pulmonary pathology contributing to the patient's signs. A component of pulmonary hypertension also can't be ruled out. If possible, I would recommend referral for this patient to see a cardiologist. Additional diagnostics such as an agitated saline contrast study may be needed for definitive diagnosis. If referral cannot be performed, additional images include further evaluation distal to the pulmonic valve in position 2 to help identify if a PDA is indeed present and also obtaining left atrial short axis images, such as an LA/AO heart base for boon and additional heart base measurements. If not moving forward with referral and there is underlying pulmonary pathology, elective anesthetic procedures should be proceeded with caution. If there is additional complication such as a reverse PDA, similarly, the patient is at an increased risk for elective anesthetic procedures. However, given the history, there is concern for quality of life component. Judicious perioperative fluids are recommended due to the increased left atrial size. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. If needed, anticholinergics can be used in the face of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia. Close monitoring of breathing rates and patient oxygenation, if there's any concern for decompensation, chest radiographs are recommended.

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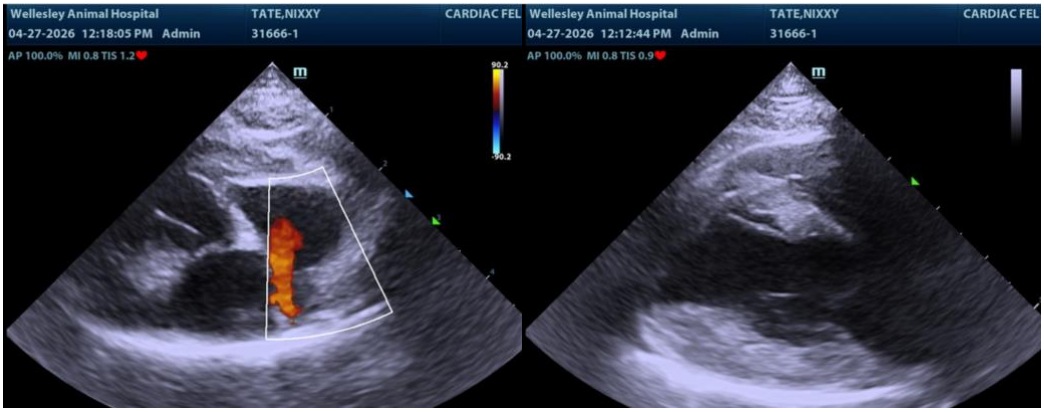

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Sara Brethel DVM, DACVIM (Cardiology)

info@SonoPath.com