



PATIENT

D.D. Knoll

SPECIES

Feline

BREED

American Shorthair

SEX

Spayed Female

AGE

15 Years

WEIGHT

10.58 lbs

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Andrea Nason

HOSPITAL NAME

Caravan Vet

REFERRING VET

Dr. Andrea Nason

INVOICE

16072

DATE

05/11/26

PRESENTING CLINICAL SIGNS

D.D. was diagnosed with a heart murmur in 2024, had an echo with a cardiologist - no structural changes, suspected physiological murmur. In Dec 2025 at routine visit, her snap proBNP was abnormal and an Idexx proBNP level was abnormal (result unknown). D.D. has significant dental disease and needs a dental cleaning. Cardiac work up to assess for underlying heart disease, if cardiac medications are warranted, safety of anesthesia, and if HCM if Felycin CA1 is an option.

Abnormal PE/Chem/CBC/UA Results: December 2025 - crea 2.5, BUN 33.7, P 3.2 Glob 5.2, ALT 166 T4 - current level unknown. Patient was hyperthyroid and treated with radioactive iodine in 2021. Weight stable, no PU/PD. Blood pressure: 150 systolic Current labs pending: CBC, Chem, T4, UA, BNP, FGF 23

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	4.8	NM	0.57	1.0	0.48	46	--
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)	LVIDs (m/s)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	
PATIENT	--	1.32	1.2		--	~2.0	0.54
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 mitral valve leaflets are normal and there is no mitral regurgitation. The left atrial size is normal. There is no evidence of systolic anterior motion of the mitral valve and no evidence of a left ventricular outflow tract obstruction. Left ventricular systolic and diastolic function is within normal limits. There is no evidence of left ventricular concentric hypertrophy. There is normal right atrial size without evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on the images provided. The right ventricle appears normal in structure and function subjectively. The aortic valves have normal morphology and the corresponding outflow velocities are within normal limits. The outflow velocities of the pulmonic valve display a dynamic right ventricular outflow tract obstruction. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses. Irregular region within the liver.

ECC



PATIENT

Normal sinus rhythm.

D.D. Knoll

ULTRASONOGRAPHIC FINDINGS

SPECIES

Feline

- Dynamic right ventricular outflow tract obstruction.
- Elevated proBNP.
- Normal sinus rhythm.

BREED

American Shorthair

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

SEX

Spayed Female

The patient has a dynamic right ventricular outflow tract obstruction. The interventricular septum does measure at the upper limits of normal to equivocally increase and serial monitoring is recommended but not likely causing the elevated proBNP. There's an irregular region within the liver and the cause is unknown. Further evaluation is recommended, and I would consider an abdominal ultrasound. No cardiac therapies are indicated at this time. The proBNP is likely increased due to renal disease versus underlying systemic disease and a recheck echocardiogram is recommended in 10 to 12 months. Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case 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.

AGE

15 Years

WEIGHT

10.58 lbs

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Andrea Nason

HOSPITAL NAME

Caravan Vet

REFERRING VET

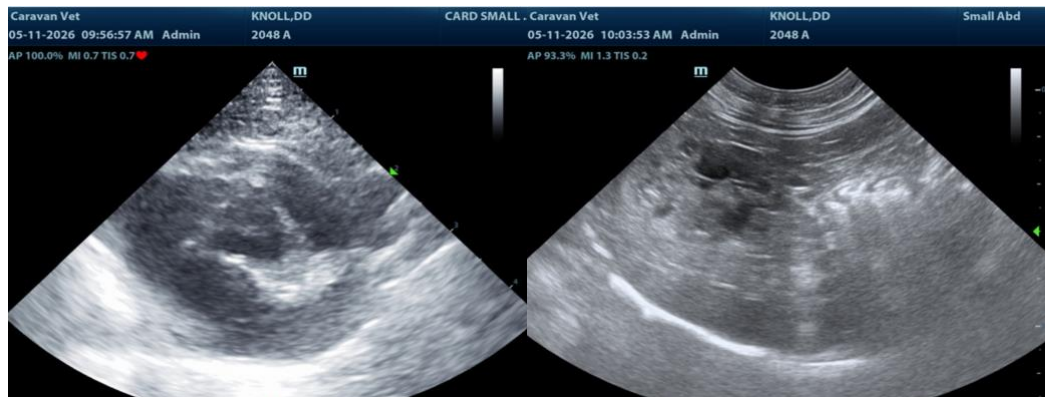
Dr. Andrea Nason

INVOICE

16072

DATE

05/11/26



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