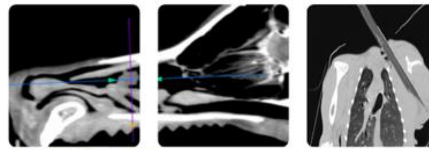
The Focal Zone
FUELED BY SONOPATH VETERINARY ULTRASOUND

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.thefocalzone.com
info@thefocalzone.com
289.808.2608



Teleradiology
Educational Teleconsultation Services™

PATIENT

Bubbles Dunbar

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

4 Years

WEIGHT

5.3 kg

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

New Hamburg Veterinary Clinic

REFERRING VET

Dr. Puckering

INVOICE

16439

DATE

05/22/26

PRESENTING CLINICAL SIGNS

Grade 2/6 heart murmur with arrhythmia heard intermittently. No clinical signs or concerns from owner
Severe dental disease and small gingival mass present. Current Medications: none

Primary Question to Be Answered in This Exam Is there any increased AX risk or certain medication to avoid for anesthesia? ECG attached

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	5.3	260	0.52	1.42	0.51	65	NM
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	1.17	1.2	NM		0.7	1.3	NM

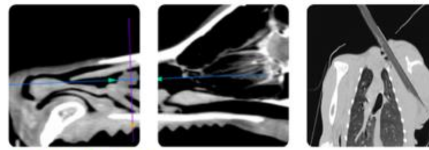
Adapted from June Boon,Veterinary Echocardiography,1998
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

Cardiac Presentation

The left atrium is normal in dimension. There are no distinct left atrial thrombi/clots or spontaneous echo contrast appreciated. The left ventricle is normal in dimension as well as wall thickness, and no evidence of restriction. Left ventricular systolic function is normal, with adequate contractility based on fractional shortening and systolic left ventricular dimensions. The right atrium and ventricle are subjectively normal in dimension and systolic function. There is evidence of systolic anterior motion of the mitral valve chords and a dynamic left ventricular outflow tract obstruction with no overt mitral regurgitation. The tricuspid valve leaflets presented normal linear structure, extension in systole, and union in diastole with trace regurgitation. The left ventricular outflow tract demonstrated turbulent flow and subjective structural valvular integrity. The visible aorta is unremarkable. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and appropriate diameter and distensibility. There is no evidence of semilunar valve insufficiency or pulmonary hypertension documented. There is no visible pericardial, pleural, or free peritoneal fluid noted.

ECG

The underlying rhythm is sinus in origin with an average rate of 200 bpm. The R-R intervals are regular, with a uniform P-R interval that is within normal limits. There are rare (2) premature complexes with a wide QRS (>40ms), consistent with a ventricular origin. There are no ventricular



PATIENT

Bubbles Dunbar

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

4 Years

WEIGHT

5.3 kg

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

New Hamburg Veterinary Clinic

REFERRING VET

Dr. Puckering

INVOICE

16439

DATE

05/22/26

couplets or runs of tachycardia documented. There is no evidence of atrioventricular block or atrial ectopy documented.

ULTRASONOGRAPHIC FINDINGS

- These findings are consistent with a dynamic left ventricular outflow tract obstruction, but no convincing hypertrophy is identified. A ventricular arrhythmia is also noted. In cats, ventricular arrhythmias are usually secondary to underlying structural heart disease. Causes include cardiomyopathy (e.g., hypertrophic, restrictive, arrhythmogenic, dilated) or secondary myocardial disease (e.g., hyperthyroidism, hypertension). Rarely, ventricular arrhythmias develop secondary to extracardiac conditions (e.g., neurologic disease, metabolic disease, fever, anemia, trauma, GI disease, DIC and sepsis).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the absence of any underlying heart disease, no cardiac therapy will be recommended. While therapy is not specifically indicated based on these findings, further diagnostics might help tailor therapeutic recommendations. Consider the following:

- Abdominal ultrasound to look for abdominal causes of VPCs (e.g., splenic/adrenal changes)

- Consider 24-48 hour ambulatory ECG (Holter) monitor to assess the severity of the arrhythmia

Owing to the presence of an outflow tract obstruction, a follow up echo is recommended in another 6-12 months to make sure no progression has occurred.

Anesthesia considerations:

If anesthesia is necessary, then alpha-2 agonists, ketamine, high dose acepromazine, and Telazol should be avoided. Fluid therapy during anesthesia should be considered at a reduced rate (e.g., 5 ml/kg/hour) if possible (i.e., if not hypotensive). A shorter anesthetic duration will reduce the risk of complications. Pre-oxygenation is advised. Premedication with an opioid (i.e., butorphanol, hydromorphone, oxymorphone) with or without a benzodiazepine is generally the safest protocol. An induction agent such as Propofol, Alfaxalone can be used to effect. Maintenance of anesthesia with isoflurane or sevoflurane is reasonable.

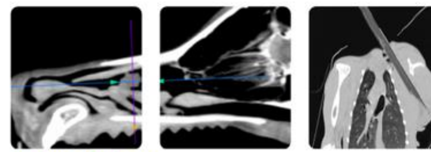
Diet:

No special considerations are necessary. Any high-quality food from Hills, Royal Canin, Science Diet, Eukanuba, Iams, or Purina is reasonable.

Activity:

No special considerations are necessary.

The Focal Zone
FUELED BY SONOPATH VETERINARY ULTRASOUND



Teleradiology
Educational Teleconsultation Services™

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.thefocalzone.com
info@thefocalzone.com
289.808.2608

PATIENT

Bubbles Dunbar

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

4 Years

WEIGHT

5.3 kg

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

New Hamburg Veterinary Clinic

REFERRING VET

Dr. Puckering

INVOICE

16439

DATE

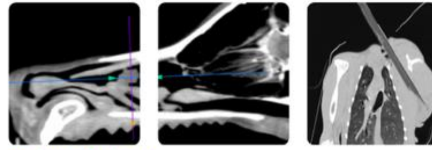
05/22/26

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.

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

info@SonoPath.com



PATIENT

Bubbles Dunbar

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

4 Years

WEIGHT

5.3 kg

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

New Hamburg Veterinary Clinic

REFERRING VET

Dr. Puckering

INVOICE

16439

DATE

05/22/26