

PATIENT DISCHARGE SUMMARY

OSU Case Number: 000489542

Client: Teresa Sweeney

Patient: Highlander Violet

Referring Veterinarian: Tod Beckett Fax: (614) 529-2217

Date Admitted: 4/1/2019 **Date Discharged:** 4/1/2019

Patient Status: Released

Clinician: Jaylyn Rhinehart DVM, DACVIM (Cardiology)

Columbus Small Animal 614-292-3551
Dublin Small Animal 614-889-8070
Pharmacy 614-292-1010
Business Office 614-292-1360
Fax 614-292-1454

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Final Diagnosis:

Normal feline cardiac examination - normal cardiac auscultation

Echocardiogram: normal- no evidence of congenital heart disease and no evidence of acquired heart disease (cardiomyopathy) at this time

History and Clinical Problems:

Highlander Violet is a 11 month old, female Maine Coon who was examined today at the OSU-Veterinary Medical Center **Cardiology Service** for a screening evaluation for congenital heart disease and for hypertrophic cardiomyopathy. No heart murmur has been reported up to this point.

Violet is not currently taking any medications, and is not taking heart worm preventative.

Diagnostic Procedures and Physical Findings:

Physical Examination

Body Weight: 5.77 kilograms, **Body condition** 5/9: **Attitude:** BAR **Hydration:** adequate

Vital signs: Temperature: not taken Pulse/Heart rate/minute: 160 Respiratory rate/minute: sniffing

Mucous membranes and refill time: pink, <2 seconds.

Examination was focused on cardiac evaluation.

Physical examination of the heart and cardiovascular system was normal.

Heart rate, heart rhythm, femoral pulses, and precordial impulses were normal.

Heart sounds were normal; no gallop sounds were detected.

Cardiac murmurs were not detected during careful auscultation of the heart.

Diagnostic Tests

Echocardiography (two-dimensional, M-mode ultrasound imaging color & spectral Doppler examinations of the heart) to screen for (hypertrophic) cardiomyopathy.

2D and M-mode imaging identified heart chambers of normal size with normal systolic function of the ventricles.

No congenital malformations of the heart were identified.

There was no subjective or objective (measurement) evidence of hypertrophic cardiomyopathy.

A small abnormality in blood flow (regurgitation) was seen at the tricuspid valve but the valve appeared normal. This minor regurgitation is considered a variant of normal, and is not clinically significant at this time.

ECG during echo: sinus tachycardia/normal sinus rhythm

Recommendations and Instructions:

Medications: As there is no evidence of heart disease, no medications have been prescribed at this time.

Activity: Highlander Violet can continue normal activities.

Diet: There are no dietary restrictions based on today's heart evaluation.

Prognosis:

The current **prognosis for heart health is very good**. This screening examination did not reveal any evidence of congenital heart disease (birth defects) or acquired heart disease (such as hypertrophic cardiomyopathy, HCM). It should be appreciated that cardiomyopathies are classified as adult-onset, genetic heart diseases. These can

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develop later in life and for this reason the examination findings should be interpreted as "normal for this time frame".

Cats used for recurrent breeding should be re-evaluated at regular intervals (e.g., yearly) since HCM can develop later in life, even after a normal screening examination.

There are limited genetic tests available for identifying carriers and affected cats with HCM and these are only available for certain breeds (currently limited to the Maine coon cat and Ragdoll breeds). Please discuss with the cardiologist any questions you have about genetic testing in cats. When appropriate, we can refer you to laboratories that offer this service directly to breeders and cat owners. Currently, we recommend the genetic screening services available at North Carolina State University College of Veterinary Medicine. See: <https://cvm.ncsu.edu/genetics/submit-dna-testing/>

Even when a genetic test is available for a particular breed, that laboratory test is not sufficient as a single screening method. Cats with HCM can carry other genetic mutations that are not identified by available laboratory testing. As a result, the stethoscope (for auscultation) and ultrasound examinations of the heart (echocardiography) have been the most important methods for screening cats for obvious heart diseases such as HCM. It should be understood that minor or trivial heart (birth) defects might not be identified conclusively by cardiac ultrasound, and the echocardiographic criteria used for diagnosis of HCM in cats are not "black and white". In fact the measurement values used in different parts of the world for the diagnosis are different! As a result of this uncertainty, we emphasize to our clients that the echocardiogram is a good method for detecting moderate to severe HCM, but there are some cats where the ultrasound examination is "borderline". In these cases, a discussion should be undertaken with the cardiologist and breeders should review all of the other characteristics of that cat and plan follow up examinations. Additionally, genetic tests should be evaluated if available. The NT-proBNP test is another "biomarker" that can be performed at through family veterinarian's office (using IDEXX laboratories). Unfortunately, this test is most useful in cats with heart murmurs and more likely to be positive when there is moderate to severe heart disease. Like the echocardiogram, "borderline" cases of HCM will be more challenging to identify with certainty.

Fortunately, no evidence of HCM was found in Violet at this time.

Next Appointment:

If breeding is continued a reevaluation echocardiogram should be scheduled in approximately one year. You can discuss this with the cardiologist if you have any questions. Thank you for bringing Highlander Violet to Ohio State Veterinary Medical Center Cardiology today! Please do not hesitate to contact us should you have any further questions.

Thank you. We appreciate your patronage. Your support of our programs is important. Please do not hesitate to contact us if you have any questions about our evaluation or instructions.

Rita Uhle

Jaylyn Rhinehart, DVM, DACVIM (Cardiology)