



## PATIENT

Maple Sheffield

## SPECIES

Canine

## BREED

Standard Poodle

## SEX

FS

## AGE

12 years

## WEIGHT

27.8 kgs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Dr. Mark van Campen

## HOSPITAL NAME

Mississippi Mills  
Animal Hospital

## REFERRING VET

Dr. Mulloy

## INVOICE

47394

## DATE

4/1/26

## PRESENTING CLINICAL SIGNS

- History: HM noted fall 2025. Echo done Dec 23/25: CVD B1. No arrhythmia noted at that time.
- Has since been Dx with Cushings (LDDST confirmed, plump adrenals and supportive hepatopathy on abd U/S), arrhythmia noted. ECG confirmed VPC's. No cause of VPC's found on PE or abd U/S
- New arrhythmia noted this month

Abnormal PE/Chem/CBC/UA Results: No arrhythmia noted at that time. Cushings (Mod incr ALP, mild incr ALT), inadequate suppression on LDDST) Abd U/S Mar 31/26 supportive of pituitary dependent Cushings. No cause of VPC's found. Dr van Campen did brief cardiac imaging - no pericardial effusion, no cardiac masses on L ventricular outflow tract view. BP normal

## ELECTROCARDIOGRAPHIC FINDINGS

Multiple six lead ECGs are available at 25mm/s; 5mm/mV. The average heart rate is 140bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is positive with normal dimension. MEA is normal. Isolated VPCs throughout; single only, monomorphic with an RBBB morphology (LV origin). No supraventricular ectopic beats, pauses or other dysrhythmias observed.

ECG diagnosis: Normal sinus rhythm with respiratory variation. Isolated monomorphic VPCs.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The ECG confirms the arrhythmia is due to ventricular premature contractions (VPCs). VPCs are generated from abnormal conductive or fibrotic tissue in the ventricles of the heart muscle, and even frequent single VPCs will often cause no clinical signs in animals (as is seen here). When sustained however, ventricular tachycardia can lead to symptoms such as lethargy and collapse, and ultimately can lead to fibrillation and sudden death.

When addressing arrhythmias, two things must be considered; 1. Is an underlying cause evident or is this primary arrhythmic disease? And 2. Is anti-arrhythmic therapy warranted?

VPCs are a very non-specific finding. They can be due to significant cardiac disease or be extra-cardiac in origin; ie due to pain, stress, inflammation, cancer, GI disease, DIC/sepsis, etc. In this senior dog with stage B1 CVD, this is unlikely to be the cause. That being said, alternative differentials should be ruled out. A recent diagnosis of Cushings could certainly be related. Consider reassessing the arrhythmia once systemic issues are well controlled.

Electing to treat arrhythmias is based upon clinical signs and amount/degree of arrhythmia identified. Unfortunately there is always an elevated risk for collapse and sudden death in any arrhythmic patient, and even on medications this risk unfortunately still persists. Based strictly upon the amount of arrhythmia present on the available ECG, anti-arrhythmic therapy is not indicated. Despite relatively high frequency, the markers of malignancy are low (such as polymorphism, sequential VPCs, tight coupling interval, etc). A holter monitor would be ideal to understand the true extent of the abnormality if desired (reasonable to wait until determining if the rhythm resolves with control of Cushings disease).



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Monitor at home for collapse, exercise intolerance, and/or cough. Mild activity restriction is advised in arrhythmic patients.

## SPECIES

Canine

With ventricular arrhythmias, anesthetic risk is considered moderately elevated if needed. Avoid ketamine, telazol, dexdomitor (or other alpha-2 agonists) and acepromazine. Recommend having lidocaine CRI available for use in the event of worsening ventricular arrhythmias under anesthesia (CRI 50—75mcg/kg/min)

## BREED

Standard Poodle

Plan: Recommend treat/stabilize Cushings disease as step 1. If the arrhythmia persists, a holter monitor should be considered.

## SEX

FS

Pending results, a recheck ECG is recommended in 6 months to assess for progression, sooner if any clinical signs arise in the interim.

## AGE

12 years



## IMAGES

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

## IMAGING PERFORMED BY

Dr. Mark van Campen

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

## HOSPITAL NAME

Mississippi Mills  
Animal Hospital

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