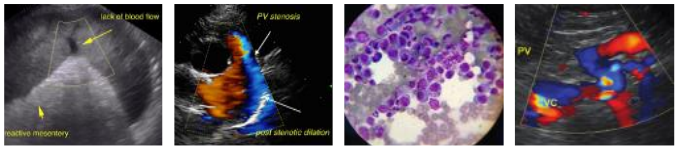
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Zara Knight

SPECIES
Canine

BREED
Doberman

SEX
FS

AGE
8 years

WEIGHT
30kgs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

HOSPITAL NAME
VanIsle VH

REFERRING VET
Dr. McFarlen

INVOICE
28779

DATE
2/5/23

PRESENTING CLINICAL SIGNS

History: Episodes of sustained (approx 1 hr) ventricular tachycardia and cardiogenic shock.
Medications: sotalol 40mg BID
Abnormal PE/Chem/CBC/UA Results: Echo (EL): CVD B1, FS 28

HOLTER MONITOR FINDINGS AND RHYTHM ASSESSMENT

Time analyzed	23:16h
Mean heart rate	66bpm
Maximum heart rate	200bpm
Minimum heart rate	34bpm
VPCs	9299 singles, 217 pairs, 14 runs
APCs	2 brief runs

Interpretation: Underlying normal sinus rhythm with appropriate rate variation. Frequent VPCs are seen; monomorphic with a RBBB morphology indicative of an LV origin. Couplets, triplets and brief salvos of VT are seen. Rare brief salvos of SVT.

Rhythm diagnosis: Sinus rhythm with poorly controlled ventricular arrhythmias.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Sinus rhythm with frequent ventricular arrhythmias persists throughout the holter. While the frequency is notable (>9000 in 24 hours), the couplets and runs of VT are highly concerning.

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?

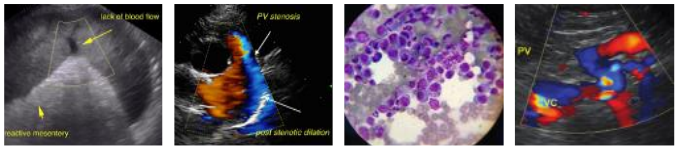
VPCs are a very non-specific finding. They can be primary in nature, be due to significant cardiac disease or be extra-cardiac in origin; ie due to pain, stress, inflammation, cancer, GI disease, DIC/sepsis, etc. **In this signalment with an unremarkable echo report, a primary arrhythmic form of DCM is suspected.**

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. Given what is seen here despite sotalol, recommend dual therapy with Mexilitene as below.

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

Anesthesia is not advised.

Plan: Recommend institution of mexilitene 5-7mg/kg PO q8h (available in 150 and 250mg capsules commercially). Continue sotalol 40mg PO q12h. Reassess ECG or holter in 1-2 weeks (ie



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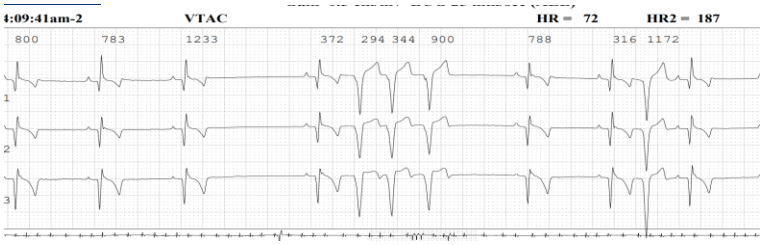
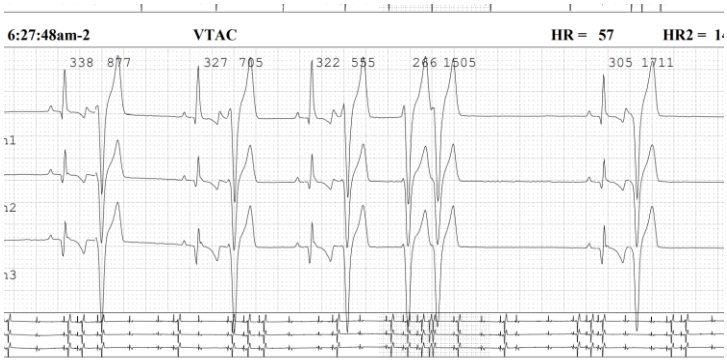
resolution or at least dramatic improvement in the frequency of the arrhythmia would be expected).

A recheck ECG/holter and echocardiogram are recommended in 6 months to assess for progression.

IMAGES



VT



Couplet

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.

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.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com