



PATIENT

Jazzie Auger

SPECIES

Canine

BREED

GSD

SEX

FI

AGE

1 years

WEIGHT

71 lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

HOSPITAL NAME

Mass Veterinary
Services

REFERRING VET

Dr. Masloski

INVOICE

24530

DATE

6/1/22

PRESENTING CLINICAL SIGNS

History: Jazzie was going to be spayed on the 29th November. She was pre-medicated with buprenorphine and dexdormitor, induced with propofol and maintained on isoflurane. She developed several ventricular premature contractions soon after induction. The VPC's were initially every other beat and responded to the first injection of antisedan but did not respond to the second and started occurring in runs. Jazzie was allowed to recover from anesthesia which was uneventful. The dexdormitor was reversed with antisedan. Blood work prior to anesthesia was normal. Jazzie has been doing well. She is on her third household. Jazzie was on Blue Buffalo until this household. Pertinent echo findings (CS 1/2022): NSF; holter recommended.

HOLTER MONITOR FINDINGS AND RHYTHM ASSESSMENT

Time analyzed	23:49h
Mean heart rate	85bpm
Maximum heart rate	216bpm
Minimum heart rate	43bpm
VPCs	1762; primarily premature singles, occ escapes
APCs	542 singles

Interpretation: Underlying normal sinus rhythm with appropriate rate variation. Isolated VPCs are seen throughout; monomorphic, singles only. Occasional escape beats noted with normal sinus pauses while at rest. Isolated APCs are also appreciated; singles only. No additional abnormalities are seen.

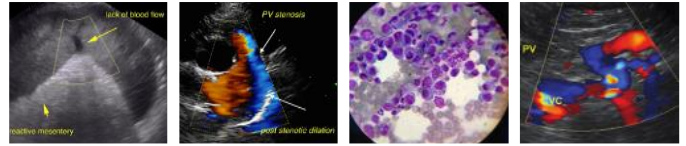
In a 1-year-old dog without systemic illness or structural cardiac disease, a **primary conduction issue is suspected**. In this breed specifically, there is concern for Inherited Ventricular Arrhythmias of GSDs (IVAGSD). This is extremely uncommon and referral to a local Cardiologist could be considered in this case. This is an idiopathic condition of GSDs that presents as VPCs with no apparent cause. These dogs are often asymptomatic; however, syncope and sudden death are also common presentations. The good news is if these dogs survive until 2 years of age, most will improve and are able to come off medications. This is the presumed diagnosis in this 12month old dog, albeit difficult to prove. Additionally APCs are atypical with this syndrome, and are difficult to explain.

Studies suggest the best outcome in these cases is on a combination of Sotalol and Mexilitene therapy. In an asymptomatic dog, it is reasonable to utilize monotherapy to begin, with addition of Mexilitene if any issues such as syncope arise. Once sotalol is on board, an extended time 6 lead ECG and/or holter monitor is a recommended as the next step to ensure control is adequate.

Unfortunately regardless of cause there is always an elevated risk for collapse and sudden death in any arrhythmic patient, and even on medications this risk unfortunately still persists. Mild activity restriction is advised for the first 2 years of life.

Fish oil supplementation is recommended for dogs with arrhythmias (1000mg of omega 3 once to twice daily).

Ideally the rhythm would be adequately controlled prior to proceeding with anesthesia. Once a recheck holter is performed, anesthetic risk is considered moderately elevated. 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).



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Monitor at home for collapse, exercise intolerance, and/or lethargy.

SPECIES

Canine

Plan: Institute sotalol 80mg tablets, give ½ tab PO q12h. Recheck ECG or ideally a holter in 2-4weeks to assess response (goal is significant reduction in ectopy without a significant change in underlying sinus rate).

BREED

GSD

Recheck ECG and/or holter in 6 months to determine progression/control, sooner if any development of associated clinical signs.

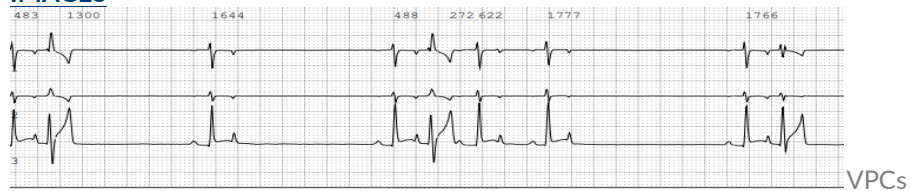
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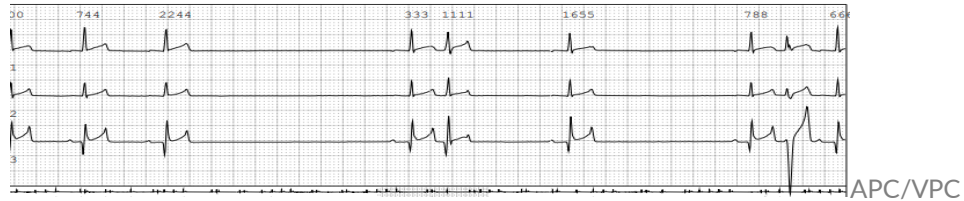
IMAGES



VPCs

WEIGHT

71 lbs



APC/VPC

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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.

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.

IMAGING PERFORMED BY

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