



| PATIENT | PRESENTING CLINICAL SIGNS |
|--------------------------------|---|
| Baloo Cifani | O has noticed panting more. More noticeable when P is stressed. Was in to be seen for lump on foot. no murmur, just irregular rhythm. No BP taken. Only medications is Glucosamine. |
| SPECIES | Abnormal PE/Chem/CBC/UA Results: CBC WNL, HWT negative. Pending Chem HR=100bpm, RR= panting Cardiology Services Report (7884719-14/ECG Consult - Routine) Completed 05/12/22 12:04 PM Patient Name: Baloo Cifani (90411) Requesting Doctor: Dr. Shawn Baskin Gender: Male, Neutered |
| Canine | Primary Complaint: Cardiology Consult Species: Canine Breed: Belgian Malinois Weight: 41.00 Kg Study indication: (P has arrhythmia or ECG abnormality) History: Pertinent history (Panting more at home), Sedation (P was not sedated for this study), Patient appetite (P appetite stable) Physical Exam: |
| BREED | R (panting), Murmur (NO heart murmur), Cardiac rhythm (), irregular rhythm (not normal but normalized with less stress), Patient attitude/demeanor (patient demeanor- bright), BCS (BCS 6/9), BCS changes (BCS stable) HEART RATE AND RHYTHM: Heart Rate: 130 bpm Rhythm: Sinus with VPCs |
| Belgian Mal X | 12 May 2022 ECG: A 6 lead ECG is provided for review Heart Rate: 130 bpm (average) Rhythm: Sinus with VPCs ECG FINDINGS AND ASSESSMENT: The predominant rhythm is a sinus rhythm. There are occasional, single, VPCs noted throughout the ECG. Ventricular premature complexes may be due to numerous etiologies, which includes; cardiac disease, pericardial effusion, metabolic disease and electrolyte disturbances, fever, pain, anemia, altered autonomic tone, trauma, sepsis, DIC, gastric dilatation with/without volvulus, splenic disease, hepatic disease, gastrointestinal disease, and pheochromocytoma. In an older patient of this signalment and in the absence of a murmur, extracardiac disease is the most likely cause for the arrhythmia. However, microscopic heart disease (i.e. myocarditis) and dilated cardiomyopathy (DCM) cannot be excluded. RECOMMENDATIONS: Ideally an underlying etiology for the arrhythmia is identified, and therapy should be directed towards the primary disease. However, occasionally even when a thorough work-up is performed, no underlying cause can be identified, and the arrhythmia would be considered idiopathic in nature. Ideal recommendations for a patient with an arrhythmia include: A baseline CBC, chemistry panel, and blood pressure. Baseline thoracic radiographs to assess overall heart size as well as the pulmonary parenchyma. Review of the thoracic radiographs with IDEXX may be helpful in this case. If there is no evidence of cardiomegaly on thoracic radiographs, an abdominal ultrasound and abdominal radiographs should be considered to evaluate for intra-abdominal disease. If there is evidence of cardiomegaly on thoracic radiographs, then the next diagnostic step would be an echocardiogram. There is currently no criterion for treatment of the ventricular premature complexes; however, this does not mean that the arrhythmia is not intermittently worse in nature. If the patient is clinically normal with no overt signs of systemic or cardiac disease, it is not unreasonable to do nothing and repeat the ECG in 1-2 months. Note that these recommendations are guidelines, and must be correlated with the history, physical examination findings, and diagnostic test results. The recommendations may need to be altered as the clinical status of the patient changes. |
| SEX | |
| Canine | |
| AGE | |
| 12.5 years | |
| WEIGHT | |
| 41.4 kg | |
| INTERPRETED BY | |
| R. McKenzie Daniel, DVM, DABVP | |
| IMAGING PERFORMED BY | |
| Crystal Hill | |
| HOSPITAL NAME | |
| Beatties PH Stoney Creek | |
| REFERRING VET | |
| Dr. Baskin | |

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

INVOICE

Cardiac Presentation

13858

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease.

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Contractility of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

| CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (Boon method) | LA/AO (Heart Base; Swe) | FS (%) | EF (%) | EPSS (cm) |
|---------------------------|---------------|---------------|---------------------|-------------------------|-----------------------------------|--|--|
| NORMAL PARAMETER | 4.5-5.5 | <2.7 | 1.3 | <1.3 | 28-40 | 40-100 | <0.6 |
| PATIENT | | | | 1.15 | 47.9 | 80 | 0.2 |
| CANINE CARDIAC PARAMETERS | HR (BPM) | AV VMAX (m/s) | PV MAX (m/s) | BODY WEIGHT (kg) | LA (2D short axis Base view) (cm) | LVIDd (Avg; 2D and m-mode short axis) (cm) | LVIDs (Avg; 2D and m-mode short axis) (cm) |
| NORMAL PARAMETER | 50-100 | 0.7-1.7 | 0.7-1.6 | | | | |
| PATIENT | 126 | 1.9 | 1.2 | | 3.9 | 3.9 | |

ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall normal echocardiogram without evidence of clinical issues such as left or right heart chamber enlargement, LV systolic dysfunction, significant valvular insufficiencies, evidence of clinical pulmonary hypertension, or cardiac / pericardial neoplasia. Monitoring of ECG +/- additional diagnostics such as full lab work and abdominal ultrasound, if persistent / progressive BPC, may be considered.



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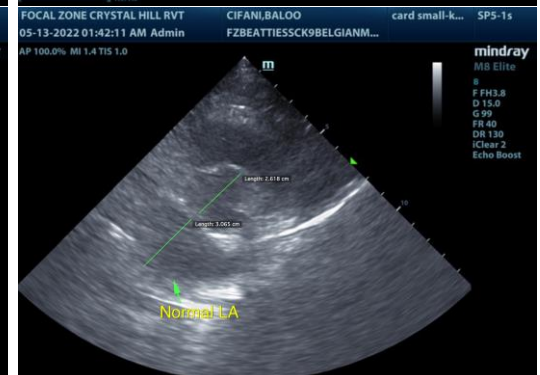
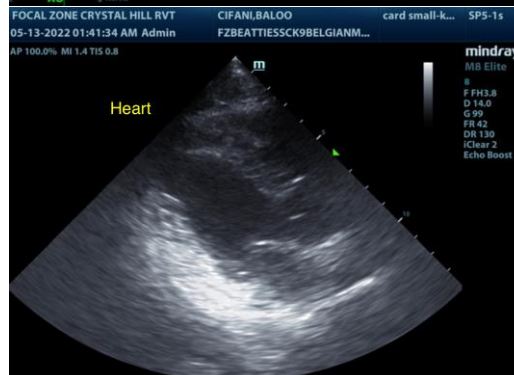
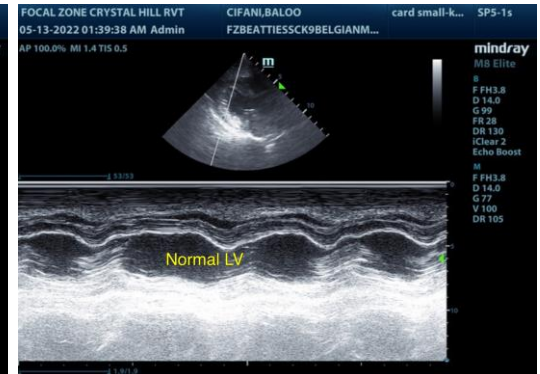
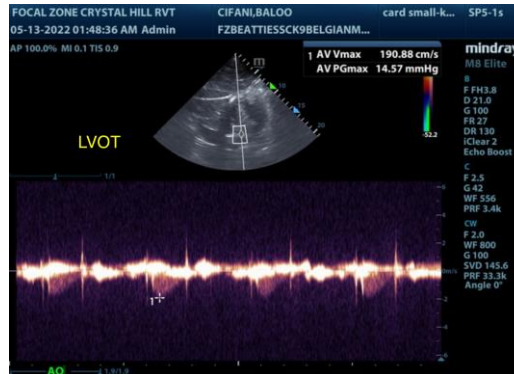
Dr. Baskin

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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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
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