

Radiology Vet Consulting

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Final Report for Exam: 785380

Patient ID:	XXXXXXX	Patient Name:	XXXXXXX	
Sex:	F ALTERED	Birthdate:	19990623	Wt: 4.13 kg
Hospital Name:			CVUES 306 - 608 Fairway Ave. Victoria, BC V9B2R5 250-889-6813	

Doctor Name:	xxxxxxxxxx	Date of Exam:	20120622
Reader:	Jean Betkowski, VMD	Confirmation Date:	6/27/2012 7:38:43 AM PT

HISTORY

Consult Type: US, SIG: DOB: 19990623, Age: 13 Y, Sex: F ALTERED, Wt: 4.13 kg, Breed: Tabby DSH, Species: FELINE, Images: 26, Case Details: Grade 3/6 murmur. Arrhythmia and occasional VPC's on ECG (attached). Evaluate for anesthetic for dental. Pro BNP also increased. Tech impressions: Single, central pap muscle with two heads. No regurge seen.

Findings

Still and video images of an echocardiogram by a registered ultrasonographer and ECG are submitted for review. The left atrium is normal in size. All valves viewed appear normal and the motion of the mitral valve appears normal on M-mode exam. The left ventricular cavity is normal in diastole (1.2 cm) and systole (0.65 cm) with a normal fractional shortening (46 %). The left ventricular walls are towards the upper limit of normal (0.52 cm septal wall and 0.52 cm free wall). The left ventricular papillary muscles appear hypertrophied on the long axis view. One of the papillary muscles appears hypertrophied on the short axis view and the other appears relatively normal. There is also a more prominent thickening at the base of the septum that extends into the LVOT on the long axis view. There is a false chordae tendineae that inserts in this area. The myocardium also appears mildly hyperechoic. The right side of the heart appears normal. The main pulmonary artery appears normal in comparison to the aorta. The aortic and pulmonary artery velocities are normal at 0.85 m/sec and 1.1 m/sec respectively. No abnormal flows are seen on Doppler exam. There is no pleural or pericardial effusion or evidence of neoplasia on this exam. A regular rhythm is seen on M-mode exam. The ECG shows a bigeminal rhythm with a normal rate throughout most of the recording. All the complexes are preceded by a P wave but the PR intervals vary beat-to-beat and with a slightly variable R-R intervals. The QRS complexes are also similar but the ones with the shorter PR interval are slightly larger than those with the longer PR interval. There is also a short run of a regular rhythm during the Lead III recording and during all of the Lead I recording. The arrhythmia likely represents an atrial or perhaps junctional bigeminal rhythm. It would be well tolerated as seen here and no clear ventricular arrhythmia are seen. The QRS complexes are negative in Lead II with a shift in the mean electrical axis to the left, consistent with a conduction disturbance such as a left anterior fascicular block.

Conclusion

The echocardiogram shows left ventricular walls at the upper limit of normal, hypertrophied papillary muscles, normal systolic function and left atrial size. The appearance of the left ventricle may be normal for this cat but the presence of systemic conditions such as hypertension or hyperthyroidism could also be playing a role. The presence of primary cardiac disease hypertrophic cardiomyopathy, cannot be ruled out. The murmur likely represents an innocent flow murmur with turbulent flow in the left or right ventricular outflow tract as no abnormal flows are seen. The arrhythmia may be related to the structural changes but the presence of other systemic conditions may also be playing a role. The heart appears to be compensating for any condition at this time with the normal left atrial size seen here.

Recommendations

A blood pressure reading is recommended to make sure it is in the normal range. If elevated, therapy with benazepril at 1.25 mg PO SID and increased to 2.5 mg PO SID after a week if it is well tolerated or amlodipine at 1/4 of a 2.5 mg tablet PO SID can be considered to return it to the normal range. If benazepril were used, a renal profile would be recommended a week after reaching the higher dose to make sure it is well tolerated. A thyroid level is also recommended if one has not been run recently to make sure it is in the normal range. If they were normal and the heart rate were persistently elevated over 190 bpm or the arrhythmia were persistent, atenolol can be considered at 6.25 mg PO SID to BID to keep it in the normal range. No other cardiac medications are recommended based on this exam. With the normal left atrial size seen here, there are no contraindications for anesthesia seen on this exam but ketamine can be avoided as part of the anesthetic protocol, fluids can be used judiciously and the respiratory rate monitored in the days following the procedure to make sure it remains less than 40 breaths per minute. The echocardiogram can be repeated in 6 months to monitor for any further changes to the cardiac structure. Note that these recommendations are guidelines and must be correlated with the history, physical examination findings and diagnostic test results. There recommendations may need to be altered as the clinical status of the patient changes. Refer to appropriate literature regarding specific diagnostics, treatment options, drug dosages, and adverse effects of any therapy. Depending on the nature of the case, it may be appropriate to refer the patient to a local specialist for further evaluation. Thank you. Jean Betkowski, VMD, Dipl ACVIM (cardiology)

Read By: Jean Betkowski, VMD

Contact Information: I can be reached by email at: jbetskowski@earthlink.net

Thank you very much for this referral. Please let me know if I can be of further assistance.