
**PRESENTING CLINICAL SIGNS**

**DATE** 12/16/21  
 History: Possible syncope. History of seizures being treated with Keppra and phenobarbital. During anesthetic episode in July, developed severe AV block after being given acepromazine, hydromorphone, and propofol. AV blocked resolved after reversing hydromorphone and receiving atropine. Grade 5/6 left-sided murmur with mild radiation to the right.

**ECHOCARDIOGRAPHIC FINDINGS**

**PERFORMED BY:** Sarah Pender, CVT  
 2D, M-mode, and Doppler study.

**INTERPRETED BY:** Keith Blass, DVM, MS, DACVIM (Cardiology)  
 There is moderate left atrial dilation. The mitral valve leaflets are thickened and exhibit systolic prolapse. A severe jet of eccentric mitral regurgitation is present. There is mild to moderate left ventricular dilation. Left ventricular systolic function is mildly hyperdynamic. The aorta and aortic are normal. Right atrial and right ventricular dimensions are normal. The tricuspid valve leaflets are mildly thickened, and a mild jet of tricuspid regurgitation is present. TR velocity is consistent with the presence of mild pulmonary hypertension (PG 45 mmHg). The pulmonary artery and pulmonic valve are normal. No heartworms are visualized. No pericardial effusion or cardiac masses are seen.

**PATIENT**

Anya Gannon  
 LA - 33.4 mm  
 LVIDd - 29.5 mm  
 LVIDs - 16.5 mm  
 FS - 44%

**SPECIES**

Canine  
 RA - 20.0 mm  
 LVOT - 0.70 m/s  
 RVOT - 0.75 m/s  
 TR - 3.36 m/s

**ELECTROCARDIOGRAPHIC FINDINGS**

**BREED** Maltese Mix  
 A single lead ECG is submitted for review.

HR: 83-166 bpm  
 Rhythm: Sinus

**SEX** Normal sinus rhythm and sinus tachycardia are present in this recording. All complex amplitudes and intervals are within normal limits. No premature beats or conduction blocks are seen.

FS

**ASSESSMENT/RECOMMENDATIONS**

**AGE** 13 y  
 Degenerative mitral and tricuspid valve disease  
 Pulmonary hypertension

**WEIGHT**

11 lb

**HOSPITAL NAME**

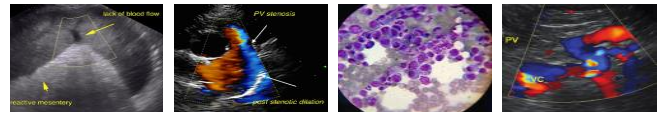
SVS Imaging QC

This examination demonstrates regurgitation of blood across Anya's mitral and tricuspid valves resulting from degenerative valve disease. Anya's tricuspid valve disease is mild, and appears to be well-compensated at this time. Her mitral valve disease is more advanced, as Anya has moderate mitral regurgitation present, with moderate secondary dilation of her left atrium and mild to moderate dilation of her left ventricle, as well as mild secondary pulmonary hypertension. Given the presence of moderate left atrial dilation, it's possible that Anya's mitral valve disease could be the cause of her possible syncopal episode, though syncope of another origin (ex. vasovagal syncope, intermittent arrhythmia) should also be considered, as should seizure activity. Anya's pulmonary hypertension is likely too mild to be able to result in syncope, however, it cannot be ruled out as a possible cause.

**REFERRING VET**

Dr. Garro

No abnormalities are appreciated in Anya's ECG.



Recommended therapy based on this exam includes pimobendan (1.5 mg BID) and sildenafil (5 mg BID), as the former should reduce Anya's risk for syncope secondary to her mitral regurgitation, while the latter should reduce her risk for syncope secondary to her pulmonary hypertension.

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A recheck echocardiogram is recommended in 6 months. Thoracic radiographs are recommended if clinical signs compatible with congestive heart failure develop. A Holter and/or event monitor may be warranted if Anya experiences additional syncopal-like episodes.

PERFORMED BY:

Sarah Pender, CVT

INTERPRETED BY

Keith Blass, DVM,  
MS, DACVIM  
(Cardiology)

PATIENT

Anya Gannon

SPECIES

Canine

BREED

Maltese Mix

SEX

FS

AGE

13 y

WEIGHT

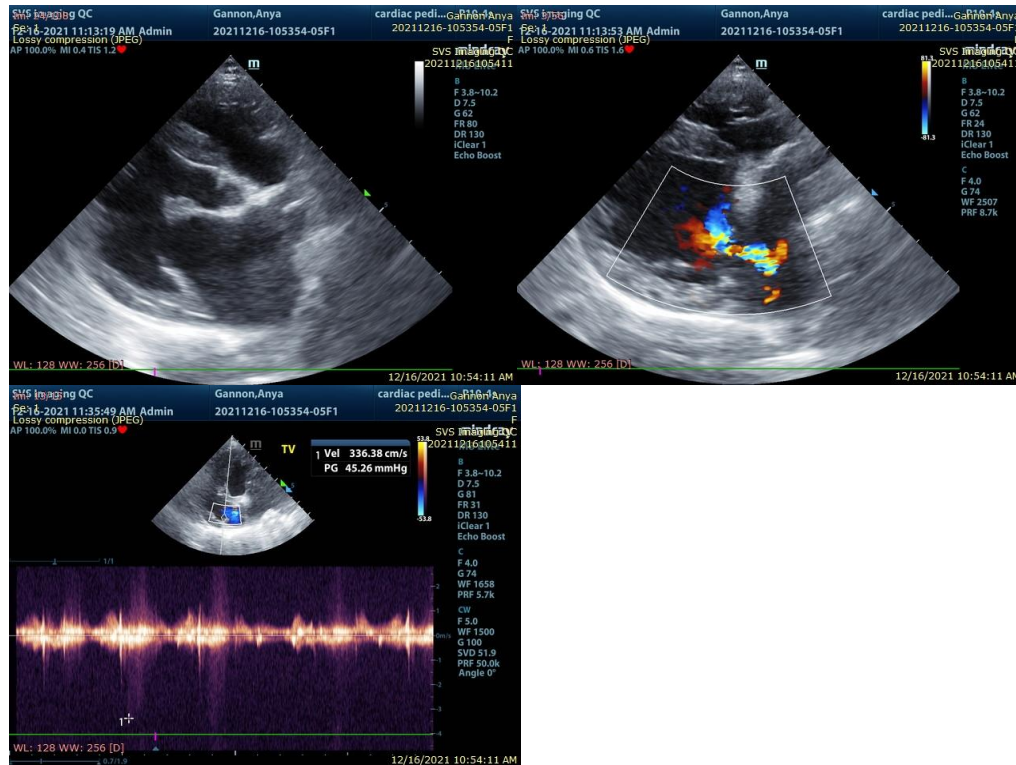
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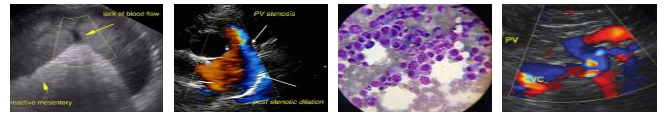
Dr. Garro



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.

Keith Blass, DVM, MS, DACVIM (Cardiology)  
KeithBlass@gmail.com  
631-804-5754



**DATE**

12/16/21

**PERFORMED BY:**

Sarah Pender, CVT

**INTERPRETED BY**

Keith Blass, DVM,  
MS, DACVIM  
(Cardiology)

**PATIENT**

Anya Gannon

**SPECIES**

Canine

**BREED**

Maltese Mix

**SEX**

FS

**AGE**

13 y

**WEIGHT**

11 lb

**HOSPITAL NAME**

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**REFERRING VET**

Dr. Garro