



**PATIENT**

Teddy Keeney

**SPECIES**

Canine

**BREED**

Dachshund

**SEX**

Male Neutered

**AGE**

13 years

**WEIGHT**

16lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Rachel Runnels, RVT

**HOSPITAL NAME**

SVS Imaging KC

**REFERRING VET**

Dr. Godsey

**INVOICE**

29716

**DATE**

3/20/23

**PRESENTING CLINICAL SIGNS**

History: Presented 3/5/23 for mild ataxia 3/5. AUS showed hepatomegaly. On demamerin and ursodial now. Added gabapentin due to previous hilaminectomy. Recently started vetmedin, Lasix, enalapril in case of pulmonary edema. Possible faint heart murmur. Theophylline started over the weekend 75mg bid PO.

-CXR report: Mild cardiomegaly. No CHF. Possible differentials for dyspnea despite these findings include a PTE. Pickwickian syndrome or other systemic illness.

**ECHOCARDIOGRAM FINDINGS**

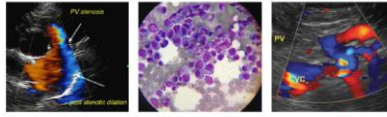
2D, m-mode, color flow and doppler imaging is available. Normal mitral valve leaflets with no prolapse into the left atrial lumen. No mitral regurgitation with no left atrial dilation. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with mild tricuspid regurgitation. Normal velocity. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

**CARDIAC CHART**

| 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                 | <1.6                    | 28-40                           | 40-100                                   | <0.6                                     |
| PATIENT   | NA            | 2.7           | 1.3                 | 1.2                     | 58                              | 90                                       | 0.1                                      |
| 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             | BELOW                   | BELOW                           | BELOW                                    | BELOW                                    |
| PATIENT   | NM            | 1.7           | 1.3                 | 7.3                     | 1.4                             | 2.0                                      | 0.9                                      |
| *Normal chamber parameters expressed as a mean value (SD)   |               |               |                     | 3                       | 1.27 (5.3)                      | 2.46 (2.46)                              | 1.36 (5.5)                               |
| <b>BODY WEIGHT DEPENDENT PARAMETERS</b>   |               |               |                     | 5                       | 1.40 (4.5)                      | 2.74 (5.2)                               | 1.60 (4.7)                               |
| <i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i> |               |               |                     | 10                      | 1.50 (3.8)                      | 3.27 (3.5)                               | 2.06 (3.1)                               |
|   |               |               |                     | 15                      | 1.83 (2.0)                      | 3.71 (2.4)                               | 2.43 (2.1)                               |
|   |               |               |                     | 20                      | 2.02 (1.9)                      | 4.14 (2.2)                               | 2.80 (2.0)                               |
|   |               |               |                     | 25                      | 2.18 (2.4)                      | 4.48 (2.9)                               | 3.10 (2.5)                               |
|   |               |               |                     | 30                      | 2.33 (3.3)                      | 4.83 (3.9)                               | 3.39 (3.4)                               |
|   |               |               |                     | 35                      | 2.48 (4.3)                      | 5.17 (5.0)                               | 3.69 (4.5)                               |
|   |               |               |                     | 40                      | 2.62 (5.2)                      | 5.48 (6.1)                               | 3.96 (5.4)                               |
|   |               |               |                     | 50                      | 2.88 (7.1)                      | 6.07 (8.3)                               | 4.46 (7.4)                               |

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overtly normal cardiac dimensions and function, with no obvious dysfunction or dilation of the left heart. Mild TR is appreciated without evidence of elevated velocity or pulmonary hypertension. The right heart/MPA are normal without abnormal outflow profiles. No additional issues are identified.

**PATIENT**

Teddy Keeney

These findings would suggest the recent dyspnea is certainly noncardiac in origin. While a PTE can often be elusive on ultrasound, typically there is some secondary enlargement of the right heart/MPA if this is present. This is considered unlikely in this case. If suspicion persists, consider a thoracic CT scan as the next step or potentially a sildenafil trial if warranted by clinical signs.

**SPECIES**

Canine

No indication for continued cardiac medications. Continued work up for infectious/inflammatory respiratory causes is recommended. Options include Baytril or similar antibiotic, anti-inflammatory prednisone, aggressive hydrocodone, etc. If refractory, may consider TTW/BAL for further information.

**BREED**

Dachshund

Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes.

**SEX**

Male Neutered

**PLAN**

Discontinue cardiac triple therapy. Consider thoracic CT scan as discussed, further respiratory workup, etc.

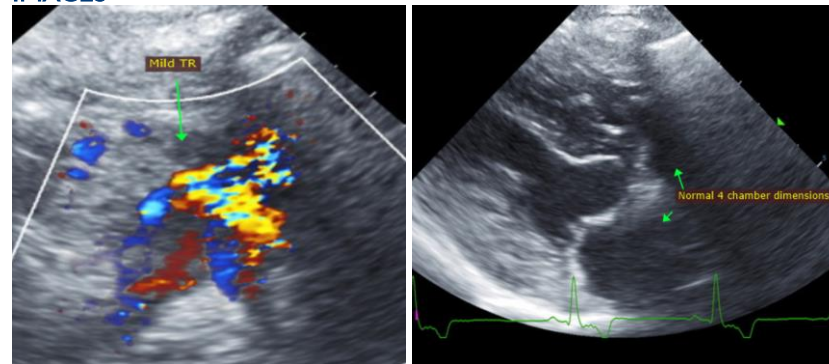
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Chronic respiratory issues can lead to pulmonary hypertension if poorly controlled and a recheck echocardiogram is recommended should any exertional syncope/dyspnea occur, or a murmur be noted in the future.

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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.

**HOSPITAL NAME**

SVS Imaging KC

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.

**REFERRING VET**

Dr. Godsey

Maggie Machen Lamy, DVM  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
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