


PRESENTING CLINICAL SIGNS

History: Grade 4/6 murmur, irregular heart rhythm.

DATE

2/24/23

ECHOCARDIOGRAPHIC FINDINGS

2D, M-mode, and Doppler study.

PERFORMED BY:

Kim Liedberg

INTERPRETED BY

 Keith Blass, DVM,
 MS, DACVIM
 (Cardiology)

There is mild left atrial dilation. The mitral valve appears normal, though trace mitral regurgitation is present. There is moderate left ventricular dilation. Left ventricular systolic function is normal. The aorta and aortic valve appear normal, though there is mildly increased flow velocity in the ascending aorta (secondary to shunt flow), as well as trace aortic insufficiency. Right atrial and right ventricular dimensions are normal. The tricuspid valve appears normal, though trace tricuspid regurgitation is present. TR velocity is consistent with the presence of mild pulmonary hypertension (PG 43.6 mmHg). The pulmonic valve appears normal. There is turbulent flow in the distal main pulmonary artery, suggestive of the presence of a left-to-right shunting patent ductus arteriosus. No pericardial effusion or cardiac masses are seen.

PATIENT

Libby O'Leary

 LA - 53.0 mm
 LVIDd - 63.1 mm
 LVIDs - 44.2 mm
 FS - 30%
 RA - 22.5 mm
 LVOT - 2.98 m/s
 RVOT - 1.58 m/s
 TR - 3.30 m/s

SPECIES

Canine

ELECTROCARDIOGRAPHIC FINDINGS

A single lead ECG is submitted for review.

BREED

Coonhound Mix

 HR: 140 bpm
 Rhythm: Atrial fibrillation with a single VPC

The underlying rhythm is irregular and there are no discernible P waves, consistent with atrial fibrillation. The R wave amplitudes are increased. A single VPC is present.

SEX
ASSESSMENT/RECOMMENDATIONS
FS

This examination demonstrates turbulent flow in Libby's distal main pulmonary artery. While spectral Doppler confirmation of the flow disturbance could not be made, this is highly suspicious for the presence of a patent ductus arteriosus (PDA), especially considering that Libby has left-sided cardiac volume overload, which in a dog her age, would be consistent with the presence of a left-to-right shunt. As Libby has only mild dilation of her left atrium at present, the development of congestive heart failure does not appear to be imminent, however, this risk will increase if Libby's suspected ductus remains patent, and ~67% of dogs with PDAs will die within one year of diagnosis if left untreated.

AGE

13 mo

WEIGHT

60 lb

Libby's ECG shows that she is in atrial fibrillation, and a single ventricular premature complex (VPC) is seen as well. Fortunately, Libby's ventricular response rate is fairly slow at present, however, if her heart rate increases, this would increase her risk for the development of congestive heart failure, and careful monitoring for this is recommended.

HOSPITAL NAME

SVS Imaging WI

Referral to a cardiologist that performs interventional PDA occlusion is recommended in order to confirm that one is present, and, if it is, to have occlusion performed. Should occlusion be performed prior to the development of congestive heart failure or myocardial failure, Lilly's long-term prognosis will likely be good, especially if her heart rate remains controlled. In the meantime,

REFERRING VET

Dr. Rudawski



I recommend starting Libby on pimobendan (7.5 mg BID), as this may help to slow her rate of left-sided volume overload progression. No therapy is recommended for Libby's arrhythmia at this time.

DATE

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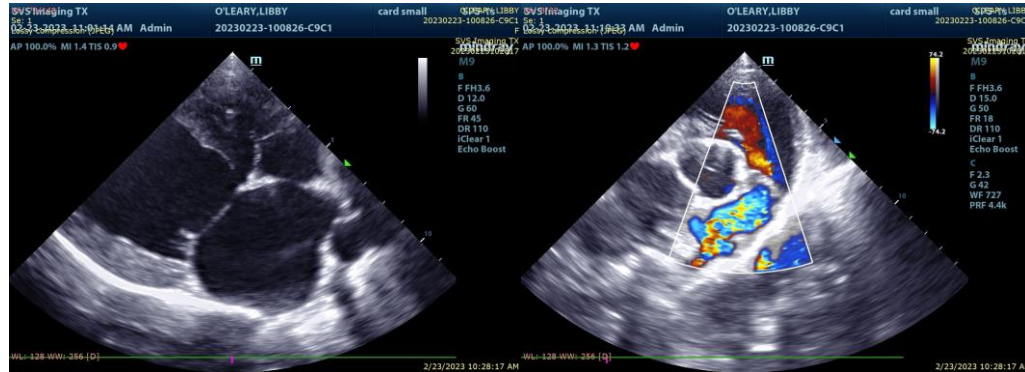
A recheck echocardiogram and ECG are recommended in 6 months if occlusion is not pursued. Thoracic radiographs are recommended if Lilly experiences respiratory clinical signs.

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INTERPRETED BY

Keith Blass, DVM,
MS, DACVIM
(Cardiology)



PATIENT

Libby O'Leary

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.

SPECIES

Canine

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.

BREED

Coonhound Mix

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SEX

FS

AGE

13 mo

WEIGHT

60 lb

HOSPITAL NAME

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REFERRING VET

Dr. Rudawski