



**PATIENT**

Fenway Finnegan

**SPECIES**

Canine

**BREED**

French Bulldog

**SEX**

Male Intact

**AGE**

5 months

**WEIGHT**

21lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary  
Specialty Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

21245

**DATE**

9/28/21

**PRESENTING CLINICAL SIGNS**

History: Fenway was noted to have a heart murmur at his initial physical exam in June. Doing well clinically. He is active and playful. CV/RESP: NSR, grade II-III/VI murmur with PMI right apical area, PSS, lung fields clear. BP: 120mmHg. \*Sedated with propofol.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and Doppler imaging is available.

**Left ventricle:** The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal. A small perimembranous ventricular septal defect (VSD) is visualized; 0.25cm diameter. The flow is left to right; max velocity 4.5m/s.

**Left atrium:** The left atrium is normal.

**Mitral valve:** The mitral valve is normal with no mitral regurgitation.

**Aortic valve/aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

**Right ventricle:** The RV appears normal with no evidence of hypertrophy.

**Right atrium:** Normal RA dimension.

**Tricuspid valve:** The tricuspid valve appears normal with no tricuspid regurgitation.

**Pulmonic valve/pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.

**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 166bpm.

**2-Dimensional Measurements**

Ao diam (cm)	1.7
LA diam (cm)	2.1
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.66
LVID diastole (cm)	2.5
PW thickness (cm)	0.68
LVID systole (cm)	1.7
FS (%)	32

**Doppler Measurements**

PV Vmax (m/s)	1.1
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**INTERPRETATION OF THE FINDINGS**

The only cause of a murmur identified is a perimembranous ventricular septal defect (VSD). The defect is small in dimension, with high velocity left to right flow. There is no evidence of left heart volume overload or mild relative pulmonic stenosis at this time. Assessment of progression in the future will help predict long term prognosis, which is generally good with this size defect. Most small congenital shunts are able to live a normal life free of medications however the true hemodynamic consequence cannot be determined prior to assessment when full stature.

**RECOMMENDATIONS**

- No medications are indicated.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Anesthetic risk is considered mildly elevated if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively



**PATIENT**  
Fenway Finnegan

and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

**SPECIES**  
Canine

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

**BREED**  
French Bulldog

**PLAN**

- Recommend conservative monitoring with a recheck echocardiogram in 8-12 months (once full stature), sooner if any development of clinical signs.

**SEX**  
Male Intact

**IMAGES**

**AGE**  
5 months

**WEIGHT**  
21lbs



**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

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.

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**Maggie Machen Lamy, DVM**  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
info@sonopath.com

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

**HOSPITAL NAME**

Mass Veterinary  
Specialty Services

**Echocardiogram performed by:** Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service (4paus.com)

**REFERRING VET**

Dr. Masloski

**INVOICE**  
21245

**DATE**  
9/28/21