


PRESENTING CLINICAL SIGNS

History: Grade IV-V/VI murmur. Asymptomatic.

DATE

5/9/23

ECHOCARDIOGRAPHIC FINDINGS

2D, M-mode, and Doppler study.

PERFORMED BY:

Shari Reffi, CVT

INTERPRETED BY

 Keith Blass, DVM,
 MS, DACVIM
 (Cardiology)

Left atrial size is normal. The mitral valve is normal. Left ventricular dimensions are normal. Left ventricular systolic function is hyperdynamic. Definitive evidence of an overriding aorta is not seen, however, there does appear to be right-to-left shunting through a defect in the basilar interventricular septum. The aortic valve is normal. Right atrial size is normal. There is moderate right ventricular hypertrophy. The tricuspid valve is normal. The pulmonic annulus appears to be mildly narrowed, and the leaflets themselves are not well-visualized. There is turbulent flow originating at the leaflets, the velocity of which is consistent with the presence of moderate pulmonic stenosis (PG 67 mmHg). No pericardial effusion or cardiac masses are seen.

PATIENT

Pup 2 Zhelez

LA - 14.4 mm
 LVIDd - 13.2 mm
 LVIDs - 5.5 mm
 FS - 58%
 RA - 13.9 mm
 RVPWd - 5.6 mm
 LVOT - 1.81 m/s
 RVOT - 4.10 m/s
 VSD - 4.05 m/s

SPECIES

Canine

ASSESSMENT/RECOMMENDATIONS
BREED

French Bulldog

This examination is equivocal for the presence of Tetralogy of Fallot (TOF), as Pup 2 has pulmonic stenosis, right ventricular hypertrophy, and a high ventricular septal defect (VSD), however, definitive evidence of an overriding aorta is not seen. Given this, the presence of two separate development abnormalities, pulmonic stenosis and a VSD, cannot be ruled out. In any case, the hemodynamic effects of these abnormalities are very similar to TOF, as Pup 2's elevated right ventricular pressure secondary to his pulmonic stenosis has resulted in his VSD shunting from his right ventricle to his left ventricular outflow tract. This could potentially result in the development of hypoxemia and secondary polycythemia, therefore, careful monitoring for these is recommended. Pup 2 is also at risk for the development of exercise intolerance, syncope, and arrhythmia formation secondary to his pulmonic stenosis, therefore, careful monitoring for these is also recommended.

SEX

M

AGE

10 wk

A PCV is recommended.

WEIGHT

1.94 kg

If TOF is actually present, it's unlikely that his pulmonic valve would be amenable to balloon valvuloplasty, therefore, a recheck echocardiogram when Pup 2 is a little larger is recommended for more definitive confirmation. Alternatively, cardiac angiography could be performed for confirmation, as well as to determine whether Pup 2's pulmonic valve would be amenable to a balloon procedure.

HOSPITAL NAME

North Warren AH

I recommend starting Pup 2 on atenolol (~1 mg/kg BID), as this medication may help to reduce his myocardial oxygen demand, as well as decrease the amount of right-to-left shunting through his VSD. Should polycythemia develop, phlebotomy and/or hydroxyurea therapy may be warranted. Surgical correction of the pulmonic stenosis and VSD has been attempted in some dogs with mixed results.

REFERRING VET

Dr. Corrado



A recheck echocardiogram is recommended in 3 months if angiography is not pursued.

DATE

5/9/23

PERFORMED BY:

Shari Reffi, CVT

INTERPRETED BY

Keith Blass, DVM,
MS, DACVIM
(Cardiology)

PATIENT

Pup 2 Zhelez

SPECIES

Canine

BREED

French Bulldog

SEX

MI

AGE

10 wk

WEIGHT

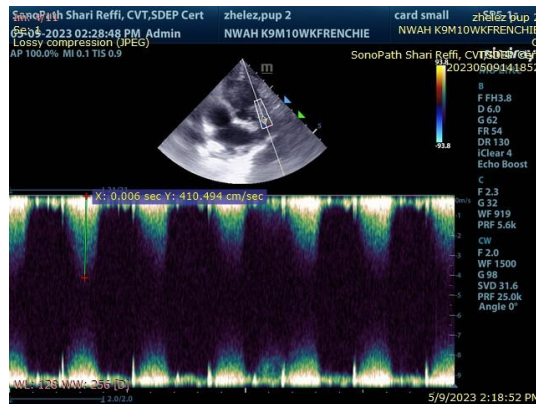
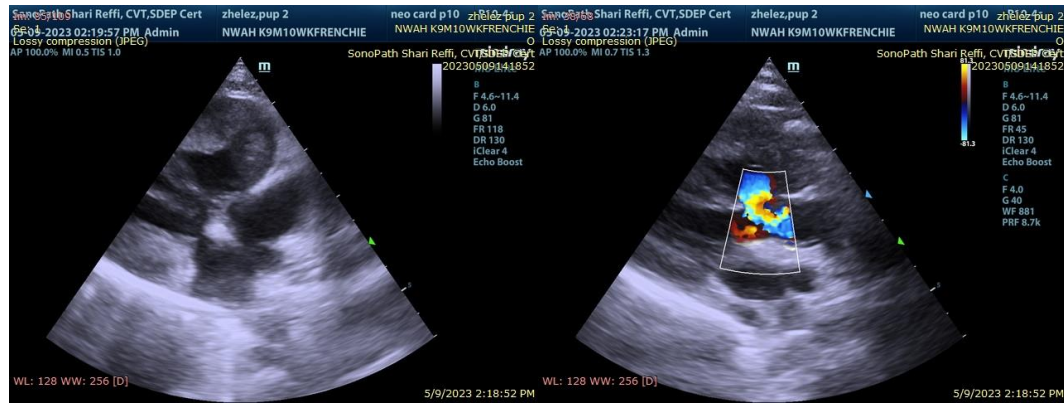
1.94 kg

HOSPITAL NAME

North Warren AH

REFERRING VET

Dr. Corrado



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