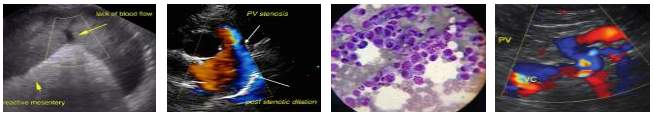

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1-800-838-4268 info@sonopath.com

DATE

5/9/23

PERFORMED BY:

Shari Reffi, CVT

INTERPRETED BY

Keith Blass, DVM, MS, DACVIM (Cardiology)

PATIENT

Pup 1 Zhelez

SPECIES

Canine

BREED

French Bulldog

SEX

FI

AGE

10 wk

WEIGHT

1.96 kg

HOSPITAL NAME

North Warren AH

REFERRING VET

Dr. Corrado

PRESENTING CLINICAL SIGNS

History: Grade IV-V/VI murmur. Two syncopal episodes.

ECHOCARDIOGRAPHIC FINDINGS

2D, M-mode, and Doppler study.

Left atrial size is normal. The mitral valve is normal. Left ventricular dimensions are normal. Left ventricular systolic function is hyperdynamic. The aorta and aortic valve appear normal. Right atrial size is normal. There is severe right ventricular hypertrophy. There is flattening of the interventricular septum. The tricuspid valve appears normal, though mild tricuspid regurgitation is present. The pulmonic valve leaflets are mildly thickened and appear partially-fused in systole. There is turbulent flow originating at the leaflets, the velocity of which is consistent with the presence of severe pulmonic stenosis (PG 150 mmHg). No obvious shunting lesions are visualized. No pericardial effusion or cardiac masses are seen.

LA – 11.4 mm
LVIDd – 10.8 mm
LVIDs – 4.2 mm
FS – 61%
RA – 12.2 mm
RVPWd – 7.7 mm
RVOT – 6.13 m/s
TR – 4.04 m/s

ASSESSMENT/RECOMMENDATIONS

Pulmonic stenosis

This examination demonstrates turbulent flow across Pup 1's pulmonic valve, consistent with the presence of valvular stenosis. As no evidence of an overriding aorta is seen in this exam, the stenosis appears to be a primary abnormality rather than part of the constellation of Tetralogy of Fallot. The velocity of flow across Pup 1's pulmonic valve indicates that her stenosis is severe, and she has severe secondary hypertrophy of her right ventricle. Given this, Pup 1's syncopal episodes are very likely to be secondary to her stenosis. Her stenosis also puts her at risk for the development of exercise intolerance, right-sided congestive heart failure, and arrhythmia formation, the latter of which could potentially result in sudden death, therefore, careful monitoring for these is recommended.

The ideal therapy to treat Pup 1's pulmonic stenosis is balloon valvuoplasty. It's unclear whether Pup 1 would be a good candidate for this procedure, as some dogs from bulldog-related breeds will develop their stenosis secondary to an aberrant coronary artery, which, if present, could be ruptured by a balloon procedure, resulting in death. Therefore, additional diagnostics, such as transesophageal echocardiogram and/or cardiac angiography, may be needed to determine whether the coronary artery anomaly is present.

In the meantime, I recommend starting Pup 1 on atenolol (~1 mg/kg BID), as this medication may help to reduce her myocardial oxygen demand and decrease her risk for additional syncopal episodes. Avoidance of high-intensity exercise is also recommended.

A recheck echocardiogram is recommended in 3 months if additional diagnostics/balloon valvuloplasty is not pursued.

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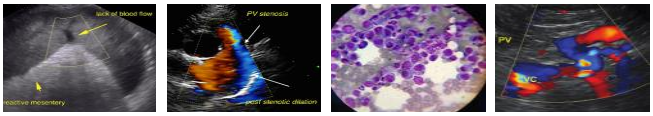

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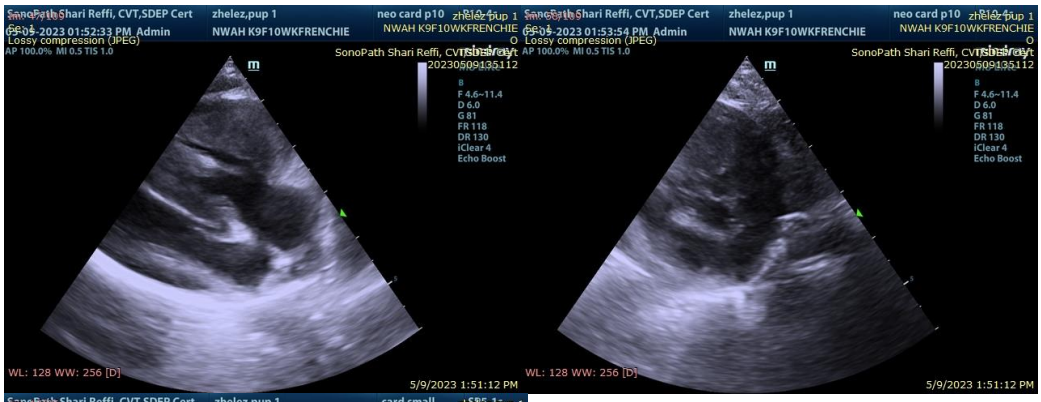

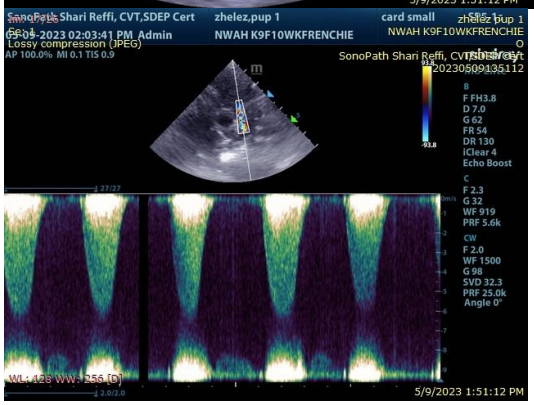

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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631-804-5754