


PATIENT

Apollo Neumann

PRESENTING CLINICAL SIGNS

cardiac arrhythmia, cardiomegaly, pulmonary edema and ascites. on benazepril 25 mg sid, furosemide 12.5 mg bid, SDMA 16

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE HEART
BREED

DSH

SEX

Neutered Male

AGE

8 Years

WEIGHT

15.1 Pounds

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		NM	0.6	2.8	0.77	30	60
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT	2.0	1.9			3.5	1.2	NM

 Adapted from June Boon, Veterinary Echocardiography, 1998
 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Blairstown AH

REFERRING VET

Dr. Harker

INVOICE

40400

DATE

8/12/22

Cardiac Presentation

The cardiac presentation revealed severe right-sided volume overload and moderate left-sided volume overload. Thickened mitral valve noted with irregular left ventricular papillary muscle. Mild septal and free wall excessive thickness noted. Contractility was subnormal. A large ventricular septal defect noted in this patient that blends into the atrial septum, causing left to right shunting. However, reversal of flow appears to be happening/Eisenmenger syndrome. Pulmonary artery was severely enlarged, consistent with pulmonary hypertension. Tricuspid insufficiency noted at 2.5 m/sec. Hepatic veins were also dilated, as was the vena cava, indicative of emerging right-sided failure. Slight pericardial effusion also noted.

ULTRASONOGRAPHIC FINDINGS

- Ventricular/atrial septal congenital defect with volume overload and left to right shunting
- Secondary left and right-sided failure
- Mitral and tricuspid insufficiency

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The defect in the ventricular septum is so extensive that I do not recognize any atrial septum as well. The defect is approximately 2.0 cm in length. The echocardiogram was fairly rapid owing to the precarious presentation. Cardiologist referral would be ideal for further definition, yet no evidence of pulmonic stenosis or other obvious pathologies noted, yet the defect is significant. Left and right-sided flow present (reversal of flow). Pimobendan could be considered off-label at 0.3 mg/kg. A combination of Furosemide +/- Spironolactone recommended while monitoring azotemia. Prognosis is poor long-term. If the patient is able to survive this immediate crisis, then recheck echocardiogram in 2-4 weeks. Target respiratory rate of <25/min.



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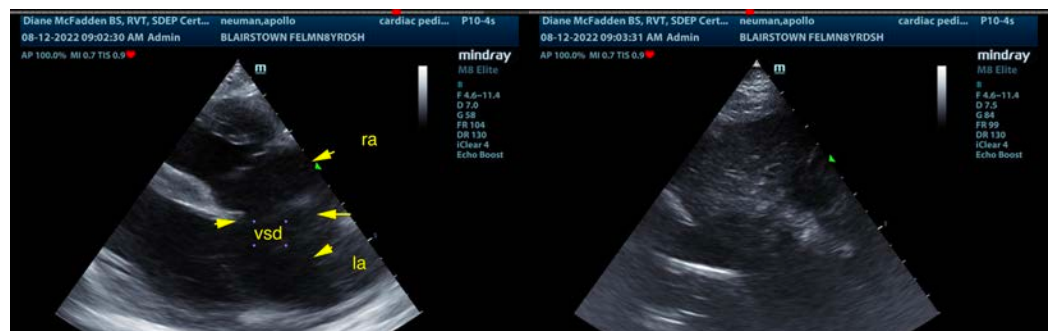
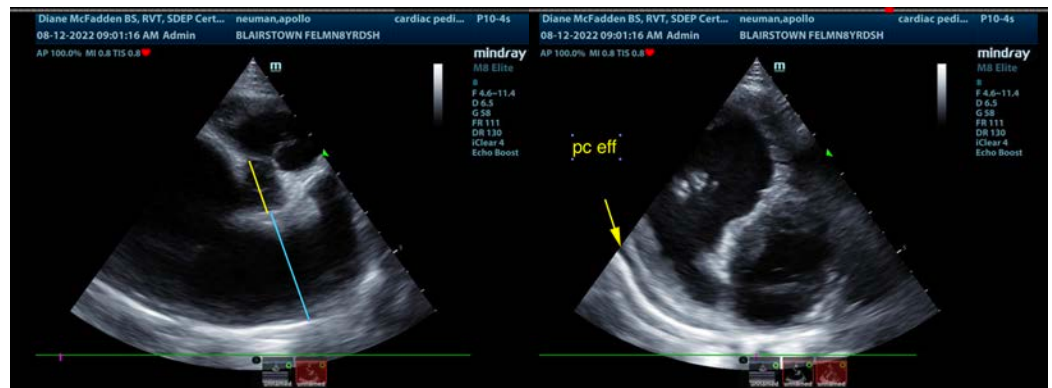
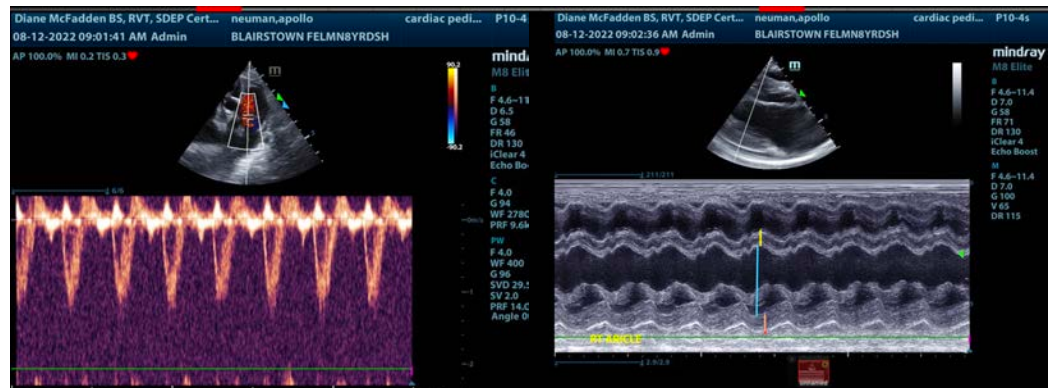
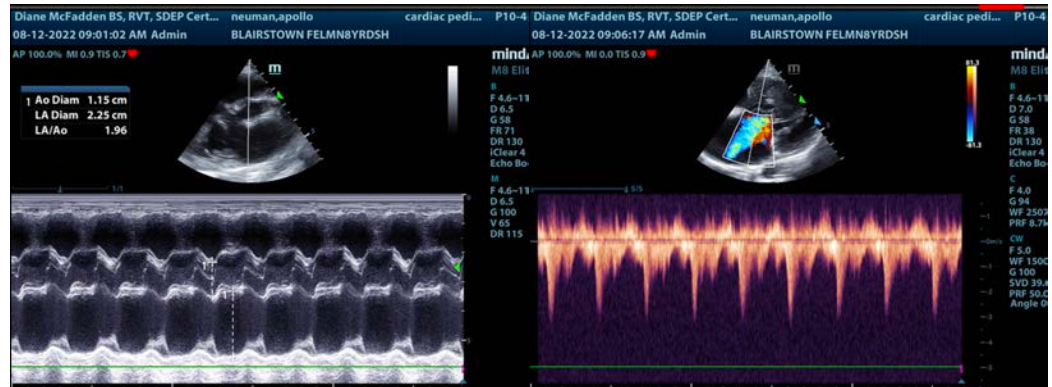
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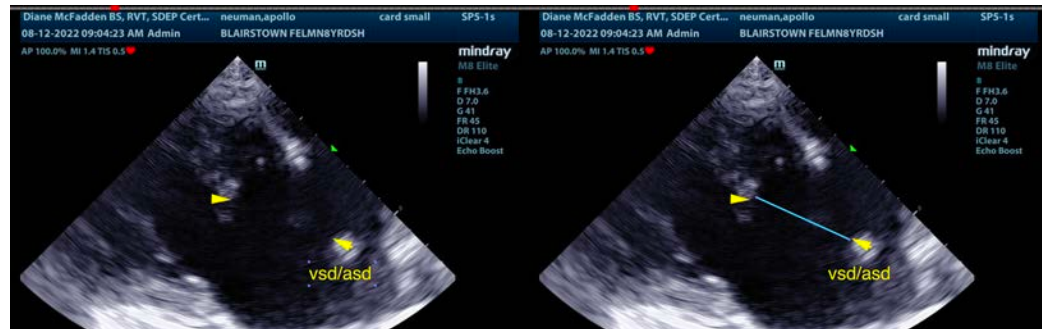
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

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