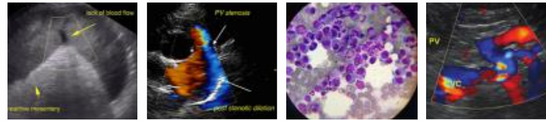


PATIENT
Bridget Worthen

SPECIES
Canine

BREED
Aussie X

SEX
Spayed Female

AGE
3 Years

WEIGHT
40.4 Pounds

INTERPRETED BY
Eric Lindquist, DMV, DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Sara Hansen

HOSPITAL NAME
Morgan VH

REFERRING VET
Dr. Maddox

DATE
9/16/22

Invoice
17316

PRESENTING CLINICAL SIGNS

History: Grade 2 HM nov 2020, grade 4 vhs

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	--	--	1.15	1.45	38	67	0.1
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**LA** 2D short axis Base view (cm)	**LVIDd** Avg; 2D and m-mode short axis (cm)	**LVIDs** Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	--	3.03	0.8	--	3.5	4.89	--

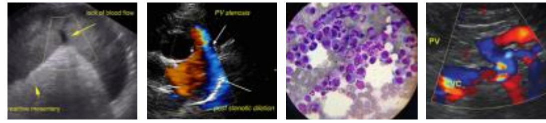
Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. Aortic velocity was excessive at 3.03 m/s. Trivial aortic insufficiency was noted. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window. The deep pulmonary artery revealed a holosystolic flow consistent with patent ductus arteriosus.

ULTRASONOGRAPHIC FINDINGS

- Holosystolic turbulence in the deep pulmonary artery, consistent with patent ductus arteriosus
- Compensatory elevated left ventricular outflow velocity

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS



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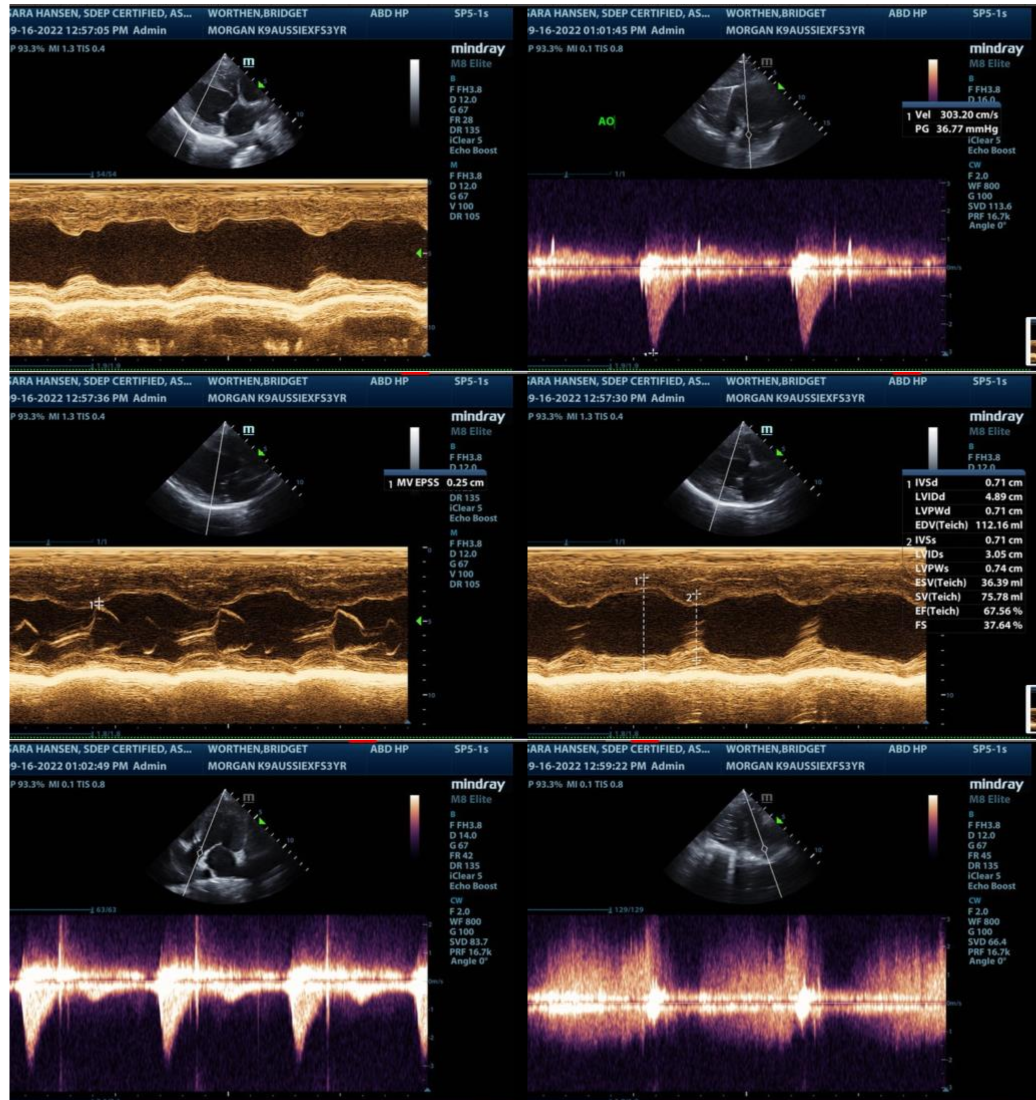
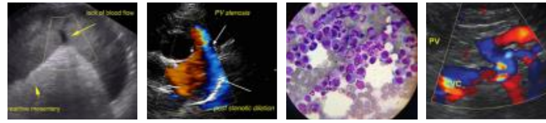
Cardiology surgical referral is recommended for interventional closure or overt surgical intervention This is likely a relatively small PDA, given the grade of the heart murmur, however, the turbulence is holosystolic. Small AP window is possible yet less likely. Structurally, the aortic valve was unremarkable.





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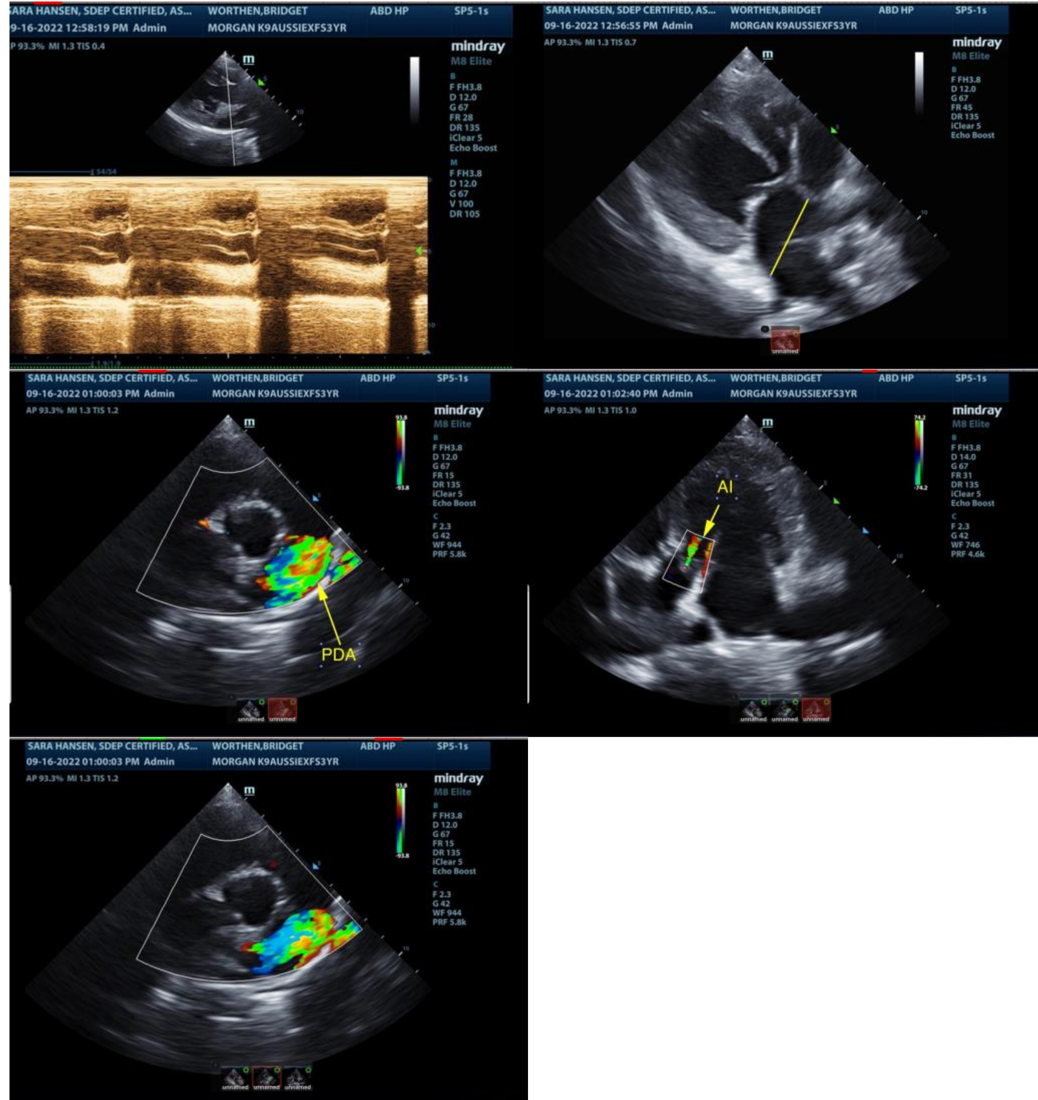


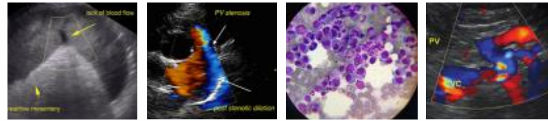
The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

Eric.Lindquist@SonoPath.com



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