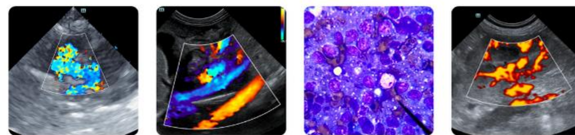
Animal Sounds NW
FUELED BY SONOPATH VETERINARY ULTRASOUND
SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.animalsoundsnw.com
info@animalsoundsnw.com
541.357.9423



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT
Lady Pohll

SPECIES
Canine

BREED
Australian Kelpie

SEX
Female Spayed

AGE
16 years

WEIGHT
32lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Sara Hansen

HOSPITAL NAME
The Veterinary Hospital

REFERRING VET
Dr. Shelton

INVOICE
47392

DATE
4/1/26

PRESENTING CLINICAL SIGNS

History: History of PS and a grade 4/6 heart murmur. Was prescribed Atenolol but since the medication has been stopped. BP: 133mmHg. Assess prior to dental.

ECHOCARDIOGRAM FINDINGS

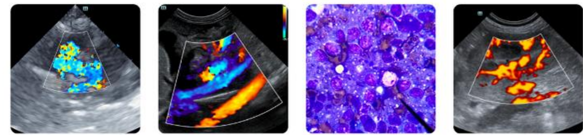
2D, m-mode, color flow and doppler imaging is available. The mitral valve leaflets are thickened with no obvious prolapse into the left atrial lumen. No mitral regurgitation. Normal left atrial dimension. Normal LV diameter with normal myocardial function. The LV wall is normal. The tricuspid valve appears normal with trace tricuspid regurgitation. Elevated TR velocity. Mild right atrial dilation. Moderate right ventricular hypertrophy and remodeling indicative of pressure overload. No significant right ventricular dilation. Severe elevation of pulmonic outflow velocities at the level of the valve. The PV leaflets are thickened and tethered, although not extensively visualized. Mild post-stenotic dilation of the main pulmonary artery. Mild pulmonic insufficiency. The aortic valve appears to have normal morphology and mobility. No AI. No obvious cardiac shunts are visualized. No pericardial or pleural effusion noted.

CARDIAC CHART

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	<1.6	28-40	40-100	<0.6
PATIENT	NA	>6.0	1.2	1.3	68	90	0.5
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	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.5	5.6	14.5	1.9	2.5	0.8
*Normal chamber parameters expressed as a mean value				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
Adapted from June Boon, Veterinary Echocardiography, 1998				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
Hansson et al, Vet Rad and Ultrasound 2002				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is elevated flow velocity through the pulmonary artery consistent with severe pulmonic stenosis. No sub or supravalvular components were identified at this time, making a purely valvular stenosis most likely. The degree of obstruction is severe based upon the maximum velocity/pressure gradient across the pulmonic valve with secondary hypertrophy and remodeling of the right ventricle. Trace tricuspid regurgitation is also noted; however, no



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.animalsoundsnw.com
info@animalsoundsnw.com
541.357.9423

PATIENT

Lady Pohll

SPECIES

Canine

BREED

Australian Kelpie

SEX

Female Spayed

AGE

16 years

WEIGHT

32lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

The Veterinary Hospital

REFERRING VET

Dr. Shelton

INVOICE

47392

DATE

4/1/26

additional issues are identified. No mitral regurgitation is seen at this time. No additional issues are identified.

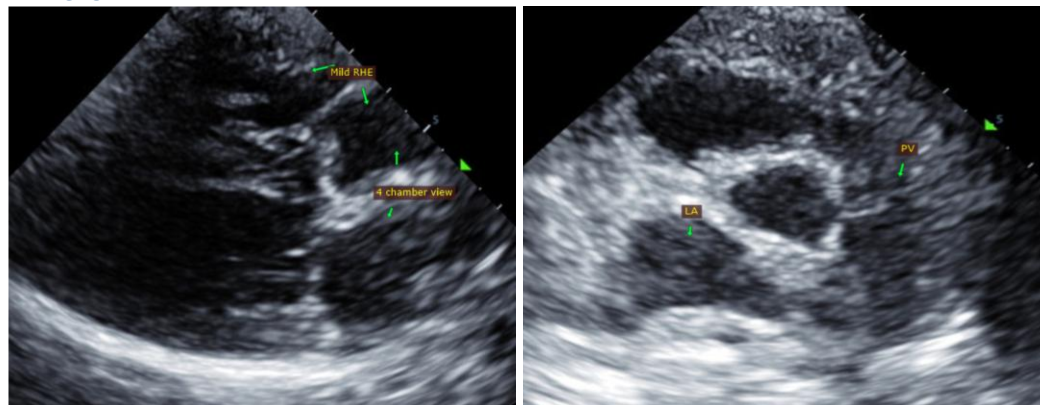
While severe PS is typically a limiting disease, the finding of only mild heart enlargement at 16 years of age is certainly a good sign. At this time point it is unlikely that the patient will experience right-sided CHF, although not entirely ruled out. In an asymptomatic dog, even with significant stenosis seen here, there is no obvious indication for Atenolol therapy at this time. If the patient experiences any exercise intolerance or syncope, this can be revisited.

Monitor for development of associated clinical signs (collapse, abdominal distention, cough, labored breathing). Mild exercise restriction is advised. Omega fatty acid supplementation may have some long-term benefit, given these cases are predisposed to development of arrhythmias going forward.

Anesthetic risk is mild to moderate at this time. **Avoid heart rate stimulating drugs such as atropine or glycopyrrolate unless absolutely necessary.** Avoid vasodilators such as acepromazine. Mild IV fluid restriction is advised. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 if possible. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary.

Recommend recheck echocardiogram annually to screen for concurrent disease, sooner if clinical signs arise.

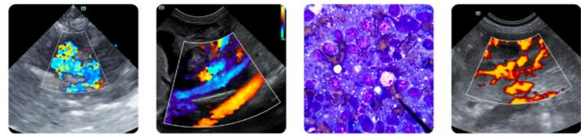
IMAGES



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. 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.

Animal Sounds NW
FUELED BY SONOPATH VETERINARY ULTRASOUND



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™
www.animalsoundsnw.com
info@animalsoundsnw.com
541.357.9423

PATIENT

Lady Pohll

SPECIES

Canine

BREED

Australian Kelpie

SEX

Female Spayed

AGE

16 years

WEIGHT

32lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

The Veterinary Hospital

REFERRING VET

Dr. Shelton

INVOICE

47392

DATE

4/1/26

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