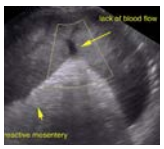
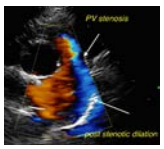
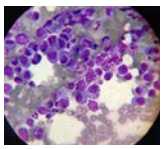
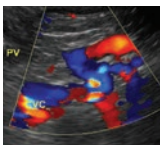
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

**PATIENT**
Penelope Ewan

**SPECIES**
Canine

**BREED**
Pit X

**SEX**
Spayed Female

**AGE**
2 Years

**WEIGHT**
30 kg

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

**IMAGING PERFORMED BY**
Wendy Turner

**HOSPITAL NAME**
Pennsauken AH

**REFERRING VET**
Dr. Kristen Mitchell

**INVOICE**
47113

**DATE**
5/3/23

## PRESENTING CLINICAL SIGNS

III/VI new murmur noted incidentally on wellness exam. Pet has been eating grain free Merrick diet, hx skin issues.

Abnormal PE/Chem/CBC/UA Results: III/VI murmur ausculted on both sides. Radiology pending but offers mild R heart enlargement. HW negative today but has not received HWP since September.

## 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 | <1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | | | 1.1 | 1.4 | 35 | 85 | 0.2 |
| **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 | 80 | -- | -- | | 3.6 | 4.1 | |

### *Cardiac Presentation*

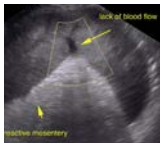
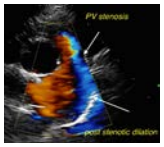
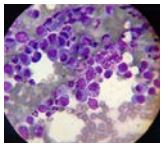
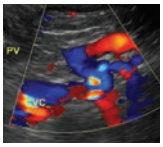
The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented 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. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. 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. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). 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.

## ULTRASONOGRAPHIC FINDINGS

- Diagnosis is open, structurally normal echocardiogram

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is not evident in this patient. Structurally, the heart appears morphologically normal. Further doppler evaluation of the pulmonic and aortic outflows warranted to assess for occult

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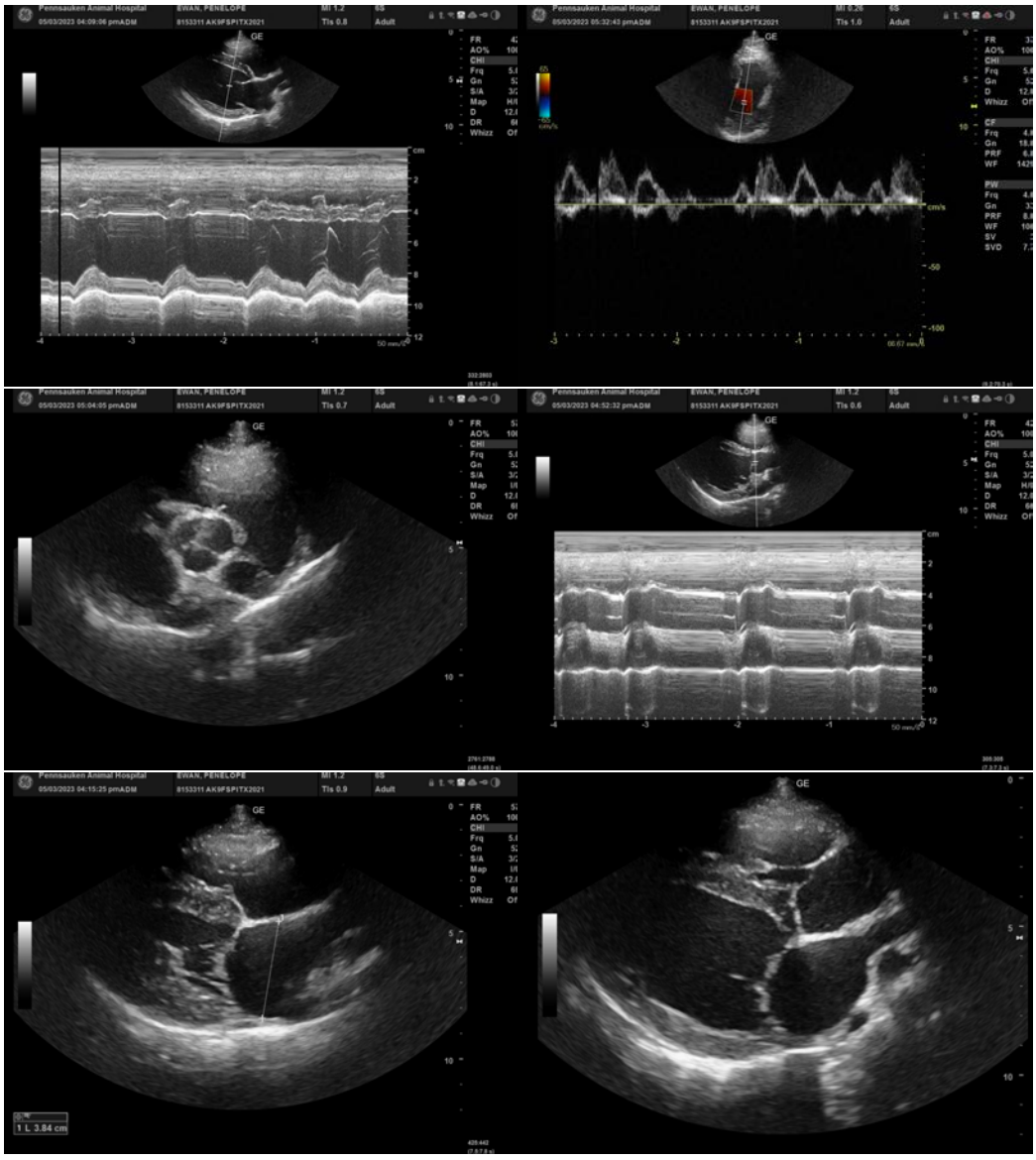
pulmonic or aortic stenosis, yet no secondary changes or such disease noted. The majority of congenital diseases have been eliminated. Further LVOT/RVOT doppler necessary to rule out lesions in these regions. No overt contraindication to anesthetic procedure, given that morphologically and functionally the heart appears normal.



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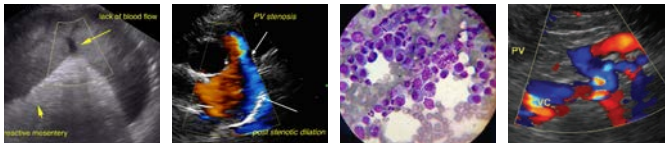

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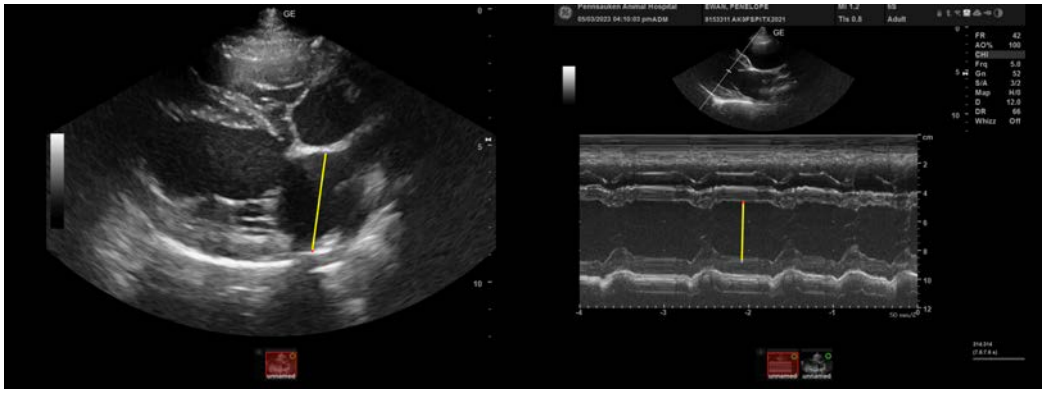

**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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

info@SonoPath.com