



**PATIENT**

Mitzi Pine Banks

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Female Spayed

**AGE**

9 years

**WEIGHT**

15lbs

**INTERPRETED BY**

Maggie Machen  
 Lamy, DVM  
 DACVIM (Cardiology)

**IMAGING**

**PERFORMED BY**

Pamela Harrigan,  
 RDMS

**HOSPITAL NAME**

Pine Banks Animal  
 Hospital

**REFERRING VET**

Dr. Syed

**INVOICE**

27799

**DATE**

12/3/22

**PRESENTING CLINICAL SIGNS**

History: Surrendered to hospital. Radiographs revealed severe cardiomegaly and irregularly-shaped heart. No abnormalities of pulmonary vasculature. No murmur. BP: 160mmHg. No Clinical signs. \*Sedated with Torb/Midaz\*.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and Doppler imaging is available.

**Left ventricle:** The LV diameter is normal with regions of remodeling. Adequate myocardial function. The LV wall thicknesses are largely normal. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The endocardium appears irregular. The papillary muscles are mildly remodeled and hyperechoic.

**Left atrium:** The left atrium is normal in dimension. No obvious spontaneous contrast or thrombi seen.

**Mitral valve:** The mitral valve is normal in structure and mobility. No obvious systolic anterior motion is seen.

**Aortic valve/aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

**Right ventricle:** The RV shows mild evidence of compression.

**Right atrium:** The right atrium shows evidence of mild compression with an increased inflow velocity.

**Tricuspid valve:** The tricuspid valve appears normal with trace tricuspid regurgitation.

**Pulmonic valve/pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

**Pericardium/other:** No pericardial effusion noted. A PPDH is visualized with hepatic tissue within the pericardial space. No obvious cardiac masses.

**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 220bpm.

**2-Dimensional Measurements**

Ao diam (cm)	1.0
LA diam (cm)	1.0
LA:Ao (Swe)	1.0
IVS thickness (cm)	0.46
LVID diastole (cm)	1.2
PW thickness (cm)	0.46
LVID systole (cm)	0.5
FS (%)	57

**Doppler Measurements**

PV Vmax (m/s)	0.82
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**INTERPRETATION OF THE FINDINGS**

The diagnosis is a pericardial peritoneal diaphragmatic hernia (PPDH). In the absence of known trauma, this is most commonly a congenital issue although either is possible in a cat without a known history. Often a PPDH is an incidental findings in cats, with the majority causing little clinical issue. The overall cardiac structure and function appear normal, although there is evidence of mild right heart compression by the hernia. No primary structural issues are identified.

Given that the patient is asymptomatic and this is like a chronic issue, it is unlikely the PPDH should cause clinical issues within the natural lifespan. That being said, referral for advanced diagnostics may be recommended to fully understand the patient's anatomy and



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possible compressive issues (CT/MR). Compression of the right heart is unlikely to change significantly; however, monitoring is advised going forward.

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- RECOMMENDATIONS**
- Given these findings, no medications are indicated.
  - Consider advanced imaging if elected.
  - No cardiac contraindication for general anesthesia. Mild IV fluid restriction is advised.
  - Risk for complication with steroid use typically follows LA dilation, which in this case is low. That being said, any cat can experience unexpected signs of intolerance and monitoring of RR/RE is advised particularly in the initiation phase.
  - Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

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**PLAN**

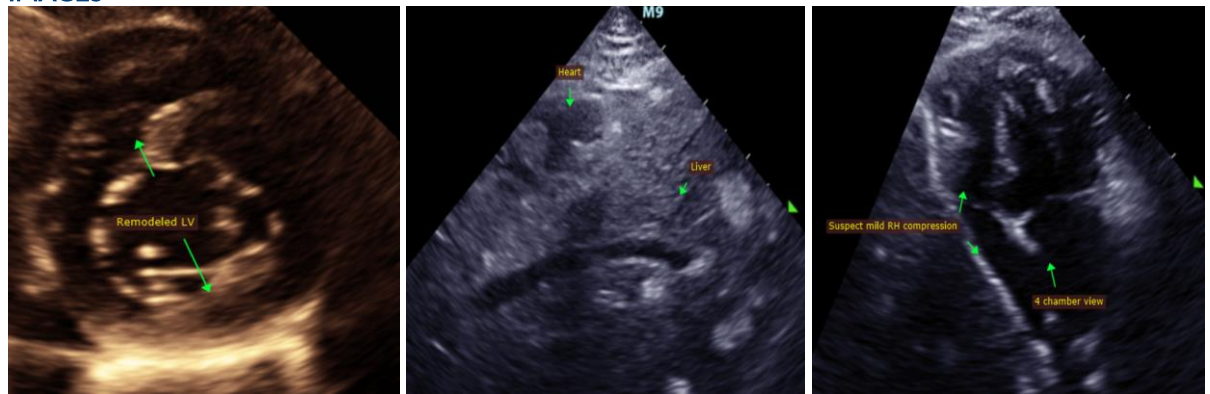
- Recommend recheck echocardiogram in 1 year to screen of development of disease that the PPDH may mask, sooner if any clinical signs arise.

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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.

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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.

**REFERRING VET**

Dr. Syed

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 info@sonopath.com

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