



PATIENT

Peanut Butter Paulsen

SPECIES

Feline

BREED

DLH

SEX

Male Neutered

AGE

8 years

WEIGHT

9.5lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

G. Ferrer, DVM

HOSPITAL NAME

Paseos Veterinary Center

REFERRING VET

Dr. Biello

INVOICE

29204

DATE

2/23/23

PRESENTING CLINICAL SIGNS

History: Recently rescued. Ausculted a marked murmur, grade 3/6. Increased abdominal breathing, no crackles nor wheezing noted. Possible diaphragmatic hernia.
 -Digital radiograph: Radiopaque structure in the thoracic cavity of the possible intestinal loop with some gas accumulation. Marked cardiac enlargement with the raising of trachea.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric with regions of hypertrophy v regions of thinning/atrophy. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. False tendon. Marked papillary muscle hypertrophy. The LV is dilated with mildly depressed myocardial function. The right ventricle is subjectively normal in size and morphology. There is severe left atrial enlargement present with no obvious spontaneous contrast present. The mitral valve appears thickened and elongated. The anterior leaflet can be seen prolapsing into the LVOT. The LVOT velocity is elevated although not captured on doppler. The RVOT velocities are normal. Mild mitral regurgitation is present. No pericardial effusion noted. No pleural effusion appreciated. Suspect abdominal organs within the thoracic cavity (extra-pericardial).

CARDIAC CHART

| FELINE CARDIAC PARAMETERS | BODY WEIGHT (kg) | HR (BPM) | IVSd (cm) (Moise, Pipers) | LVIDd (cm) (Moise, Pipers) | LWVd (cm) (Moise, Pipers) | FS (%) | EF (%) |
|---------------------------|------------------|---------------------------------|--|----------------------------|---------------------------|----------------|-------------|
| NORMAL PARAMETER | ----- | 150-240 | 0.35-0.55 | <2 (mean 1.5) | 3.5-0.55 | 35-67 | 80-100 |
| PATIENT | 4.3 | 174 | 0.75 | 2.4 | 0.65 | 50 | 83 |
| FELINE CARDIAC PARAMETERS | LA/AO (Boon) | LA/AO HEART BASE (Swe) (Abbott) | LA 2D short axis Base view (cm) (Abbott) | | LVOT VEL (m/s) | RVOT VEL (m/s) | E max (m/s) |
| NORMAL | <1.5 | <1.3 | <1.2 | | <1.6 | <1.3 | <0.9 |
| PATIENT | NM | 2.6 | 2.4 | | 1.8 | 0.7 | NM |

**Note: All measurements based upon multi-modal images and methods. An average value is reported.
 Adapted from June Boon, Veterinary Echocardiography, 1998
 Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.*

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The presumptive diagnosis and cause of the murmur is mitral valve dysplasia leading to LV hypertrophy and an obstructive LVOT flow pattern. The patient appears to be in the 'burn out' phase indicating regions of atrophy have developed. The MV leaflet is abnormal in appearance and mobility, and does not close appropriately leading to mitral regurgitation. There is severe left atrial dilation, indicating the risk of spontaneous CHF and/or a thrombotic event is currently high. A screening BP is recommended. Additionally there is suspicion for a diaphragmatic hernia, with suspect abdominal contents within the thorax. This is unlikely to be a PPDH, as the appearance of the pericardium is normal. Consider a thoracic CT scan.

In a cat with severe heart disease, early CHF must be considered as a differential for abdominal breathing. Given the severity of the findings full cardiac support is recommended as below.



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Atenolol is often used with obstructive disease and may be added in the future; however, given the burnout appearance this is not indicated at this time. Monitoring of sleeping breathing rates is recommended at home.

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Feline

Going forward, there is high risk for CHF, development of malignant arrhythmias, and/or blood clot events. Overall prognosis is guarded to poor, however most cats can maintain a good QOL for some time on medications. This patient will be at high risk for fluid overload if indicated in the future. Anesthesia is not advised.

BREED

DLH

Plan: A screening BP recommended. Institute Plavix 18.75mg PO SID (NOTE: this medication is very bitter and may causing foaming at the mouth- coat in entirety). If BP >130bpm, administer ACE-I 0.5mg/kg PO q12h. Institute Lasix/furosemide 1-2mg/kg PO q12h. Institute pimobendan (low dose, off label use) 0.625mg PO q12h. Consider thoracic CT for further hernia evaluation.

SEX

Male Neutered

Recheck echocardiogram in 6 months to reassess underlying structural disease and assess the need for atenolol.

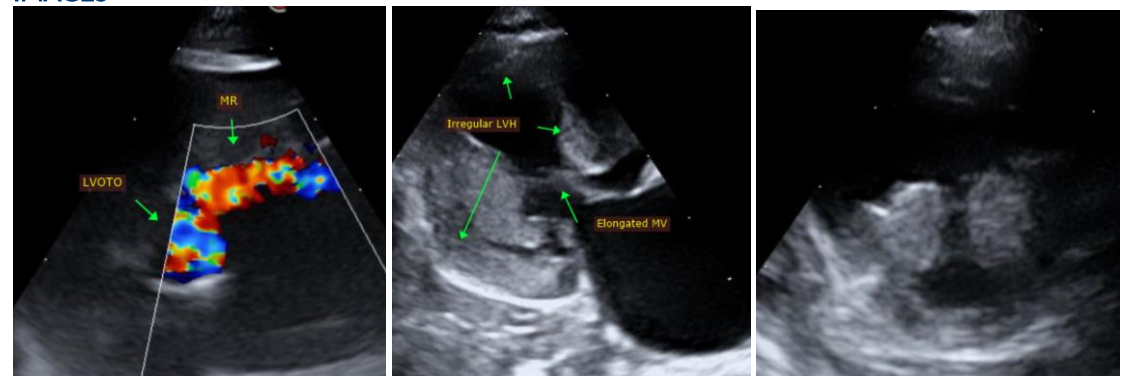
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IMAGES

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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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Center

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. Biello

Maggie Machen Lamy, DVM
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info@sonopath.com

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