



**PATIENT**

Applejack Rivas

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Female Intact

**AGE**

3.10 years

**WEIGHT**

7lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

G. Ferrer, DVM

**HOSPITAL NAME**

Pulse: Pet Ultrasound  
Services

**REFERRING VET**

Dr. Nieves

**INVOICE**

46713

**DATE**

2/5/26

**PRESENTING CLINICAL SIGNS**

History: Presented for pleural effusion, respiratory distress and leukocytosis. Presented 2 days ago with general malaise, anorexia, lethargy and depression. Diagnosed with leukocytosis and neutrophilia.

Was hospitalized and developed respiratory problems. Elevated BNP: >1000. Thoracocentesis removed 350mls of clear fluid.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall thickness is mildly increased with a decreased chamber dimension. There is a mildly hyperechoic endocardium consistent with fibrosis. Mild symmetric papillary muscle hypertrophy and remodeling. The right ventricle is subjectively normal in size and morphology. There is no left atrial enlargement present. Mitral inflows show E/A reversal. No right atrial enlargement present. The RVOT velocity is normal. No TR. The LVOT velocity is mildly elevated. Mild MR. Scant to small volume pericardial effusion noted. Pockets of pleural effusion appreciated. No obvious cardiac tumors.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LVWd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
<b>NORMAL PARAMETER</b>	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
<b>PATIENT</b>	3.2	214	0.62	0.9	0.61	61	90
FELINE CARDIAC PARAMETERS	LA/AO <small>(Boon)</small>	LA/AO HEART BASE <small>(Swe) (Abbott)</small>	LA 2D short axis Base view (cm) <small>(Abbott)</small>		LVOT VEL <small>(m/s)</small>	RVOT VEL <small>(m/s)</small>	E max <small>(m/s)</small>
<b>NORMAL</b>	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
<b>PATIENT</b>	NM	1.2	1.1		2.8	1.2	NM
<p><i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i></p> <p>Adapted from June Boon, Veterinary Echocardiography, 1998 Abbott J &amp; 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.</p>							

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis once a patient is deemed normotensive and euthyroid. Both should be considered in this case. Pseudohypertrophy should be ruled out as the LV has a volume depleted appearance, which can commonly occur with active effusion. Baseline lab work is strongly recommended. Regardless, what is seen here is mild with mild LVH and no LA dilation. This would indicate the risk for clinical issues is low at this time. There does appear to be an intermittent LVOT obstruction with secondary MR, although this appears mild at this time.



## PATIENT

Applejack Rivas

## SPECIES

Feline

## BREED

DSH

## SEX

Female Intact

## AGE

3.10 years

## WEIGHT

7lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

G. Ferrer, DVM

## HOSPITAL NAME

Pulse: Pet Ultrasound  
Services

## REFERRING VET

Dr. Nieves

## INVOICE

46713

## DATE

2/5/26

Given these findings, pericardial and pleural effusion is unlikely to be cardiogenic in origin. The LA is normal and inflows suggested of normal filling pressures. Follow up and treatment should be dictated by results of focused thoracic ultrasound, fluid cytology, and full systemic evaluation, etc. No indication for diuretics therapy at this time.

Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.).

Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Risk for complication with steroid use typically follows LA dilation, which in this case is mildly elevated. If needed, monitoring of RR/RE is advised particularly in the initiation phase.

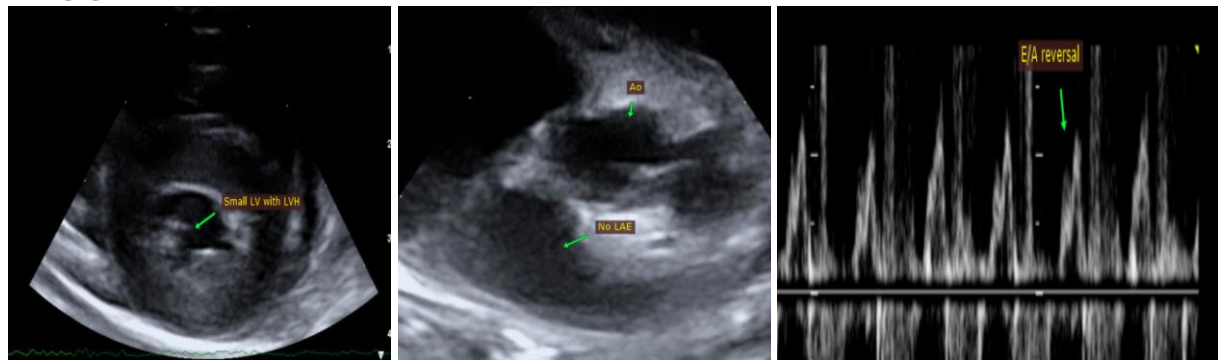
## PLAN

Full systemic workup as discussed. Assess for causes of effusion through cytology, systemic work up, etc.

A screening blood pressure and T4 are recommended every 6 months lifelong.

A recheck echocardiogram is recommended in 6-12 months to assess for progression, sooner if any issues arise in the interim.

## 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.

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