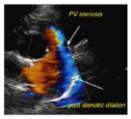
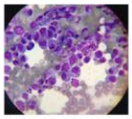
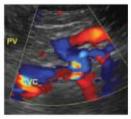
IMAGING PERFORMED BY
svsmobileimaging.com 309 - 737 - 3070

SVS IMAGING

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Lilac Middleton

SPECIES

Feline

BREED

DSH

SEX

Female Intact

AGE

18 weeks

WEIGHT

5.5lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Sarah Pender, CVT

HOSPITAL NAME

SVS Imaging QC

REFERRING VET

Dr. Hartmann

INVOICE

27313

DATE

11/7/22

PRESENTING CLINICAL SIGNS

History: Found as stray about 2 months ago. Normal growth and activity until episode of collapse 11/2/2022. Playing and fell over, then panting/open mouth breathing for about 5 minutes. During that episode, she was aware of the surroundings and responsive. Normal after that. No other episodes noted. Owner is vet tech at our hospital and has noted that RR seems high at home (46).
-Abnormal PE/Chem/CBC/UA Results: Creat 0.7 Glob 2.8 Alb: Glob 1.4 ALP 89.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The papillary muscles are normal in size and hyperechoic. The endocardium appears normal. The left atrium is normal in dimension, although mild enlargement is suspected in some views. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. Normal flow through both the RVOT and LVOT. Trace TR. No obvious AI or PI. No pleural or pericardial effusion seen. No obvious cardiac tumors. Rapid tachycardia throughout.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	**BODY WEIGHT** (kg)	**HR** (BPM)	**IVSd** (cm) (Moise, Pipers)	**LVIDd** (cm) (Moise, Pipers)	**LVWd** (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	2.5	270	0.41	0.93	0.41	58	90
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	1.2	0.9-1.2		0.9	0.9	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

No significant structural disease is identified. The LV wall thickness is normal and there is no evidence of elevated left atrial pressure. The LA is prominent to mildly dilated in some views, although the significance of this finding is unknown. No obvious congenital issues are documented. It is important to note that the patient was extremely tachycardic throughout the study which limits image quality. Consider repeat imaging with more aggressive sedation (oral Gabapentin followed by Butorphanol, Alfaxone, etc. as needed).

These findings certainly do not explain a collapse episode at home. Consider an alternative explanation, such as an arrythmia, BP issues or systemic illness. Even though mild structural changes are not entirely ruled out in this image set, in the absence of a murmur this is considered unlikely.

PATIENT

Lilac Middleton

SPECIES

Feline

BREED

DSH

SEX

Female Intact

AGE

18 weeks

WEIGHT

5.5lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Sarah Pender, CVT

HOSPITAL NAME

SVS Imaging QC

REFERRING VET

Dr. Hartmann

INVOICE

27313

DATE

11/7/22

Given these findings, no medications are indicated. It is important to note that phenotypic HCM can develop at any phase of life in cats (particularly in this predisposed breed), and often does not accompany a heart murmur or PE abnormalities. Periodic screening is ideally recommended in all cats.

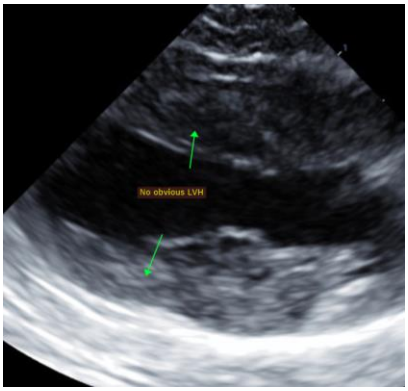
No cardiac contraindication for general anesthesia at this time.

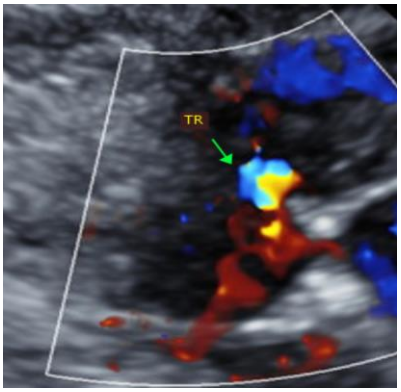
PLAN

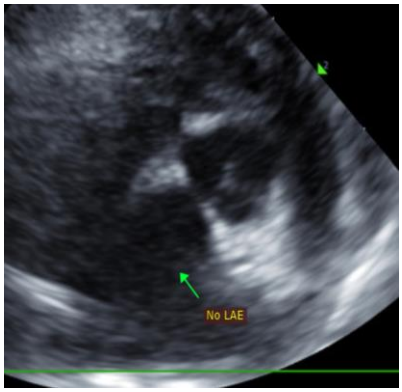
Consider additional images utilizing more aggressive sedation if indicated. Consider alternative explanation for collapse.

Recommend recheck echocardiogram in 1 year to assess for development of disease, sooner if a murmur/gallop or clinical signs develop 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. 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