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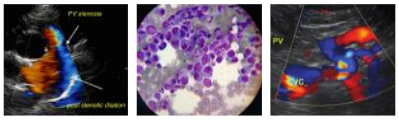

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PATIENT
Elloit Stinchcomb

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
1.6.11

WEIGHT
13.5lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME
Alexander Animal Hospital

REFERRING VET
Dr. Whitley

INVOICE
28130

DATE
1.5.23

PRESENTING CLINICAL SIGNS

History: Diabetic patient presented with open mouth breathing during exam 12/9/22. Newly diagnosed hyperthyroidism, snap pro BNP abnormal, intermittent heart murmur, weight loss.
-Pertinent abnormal PE/Chem/CBC/UA Results: Snap pro BNP abnormal, T4 high 5.3, Inc ALT & ALKP.
-Current medications: Methimazole 5mg ½ BID, Prozinc insulin 3.5 units BID.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested.
-Imaging performed by: Stephanie Warga RDCS, RVT.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental information only.

Normal cardiac silhouette. Small volume pleural effusion. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is borderline hypertrophied. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle remodeling. The right ventricle is subjectively normal in size and morphology. There is no left atrial enlargement present. No right atrial enlargement present. Normal LVOT and RVOT velocity. There is no obvious systolic anterior motion (SAM) of the mitral valve present. There is no mitral regurgitation preset. No tricuspid regurgitation. Trace aortic insufficiency. No other obvious valvular regurgitation is present. There is no pericardial effusion noted. Pockets of pleural effusion appreciated. No obvious cardiac tumors.

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	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	6.1	NM	0.65	1.63	0.65	44	78
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	1.3	1.3		1.2	1.6	NM

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

Overtly normal cardiac structure and function with borderline LVH. This may be indicative of early hypertrophy or may reflect a normal variant. In this hyperthyroid patient, the finding is likely secondary to hyperthyroidism. Given aortic insufficiency, ideally a blood pressure should be assessed to ensure no additional contributing factors are present. Monitoring the degree of hypertrophy over the next year once euthyroid will help definitively determine long term prognosis which is potentially good (assuming there is no progression). Regardless, the LA is normal indicating low risk for complication at this time.

No therapy is currently indicated. Tachycardia is noted; however, this should resolve with stabilization of the thyroid. If not possible or difficult to regulate, consider use of Atenolol to maintain a physiologic rate as needed. Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.).

Pockets of pleural effusion are noted, which are unknown origin. Tachycardia alone can lead to this development in cases of hyperthyroidism; however, typically those cases will have some degree of atrial dilation. Highly recommend sampling, focus thoracic ultrasound and/or Radiologist review of 3-view radiographs. IF no alternative explanation is found, consider a Lasix and atenolol trial while the thyroid is being regulated.

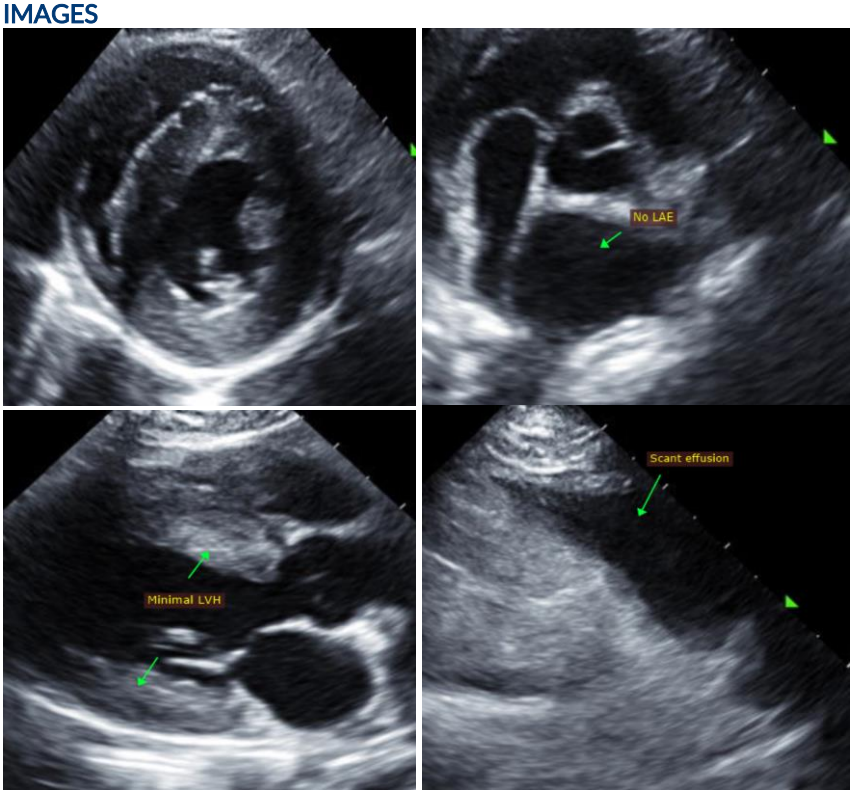
Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine).

PLAN

If tachycardia persists and there is any issue controlling the thyroid, institute Atenolol to effect (target <160bpm in hospital). Highly recommend further evaluation of effusion, including sampling, etc. If no other cause is identified, Lasix and Atenolol may be beneficial during the stabilization phase.

A recheck echocardiogram is recommended in 6-12 months to assess for progression/regression, sooner if clinical signs arise.

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.

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