DATE

4/23/2026

PATIENT

Gunther El-Hibri

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

8 years

WEIGHT

7.3 kg

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

HOSPITAL NAME

VEG Pikesville

REFERRING VET

Dr. King

INVOICE

11766

PRESENTING CLINICAL SIGNS

Lives as an outdoor cat on a farm. Normal behavior and appetite on the morning of the incident. At approximately 5 PM on 2026-04-22, the client heard the patient howling and found him in a bush, panting. Upon being removed from the bush, the patient was ataxic, fell over onto his side, and appeared to fall asleep. The patient's primary veterinarian, Dr. Bond, was called and performed a house call. Dr. Bond's initial findings: Impaired function of the left hind limb. Hypothermia with a temperature of 96°F. During Dr. Bond's visit, the patient showed spontaneous improvement over one hour, with improved respiration and increased stability while walking, though he was not back to normal. Dr. Bond collected blood samples for analysis. Differential diagnoses considered by Dr. Bond included a thromboembolic event, stroke, or seizure. A thromboembolic event was considered less likely due to the spontaneous improvement. One 6 mg tablet of Onsior was administered orally.

Pertinent abnormal PE/Chem/CBC/UA Results: Not attached, reported as: proBNP-abnormal CBC-mild neutrophilia, Chem/Lytes K+ 3.1 mmol/L; Glob 5.3 g/dL. Radiographs Conclusion: The radiographic findings suggest the presence of generalized cardiomegaly. Caudal pulmonary vascular distention is noted. Diffuse unstructured interstitial pulmonary pattern. Overall, the radiographic changes are most consistent with left-sided congestive heart failure (CHF), characterized by cardiomegaly, pulmonary venous congestion, and a diffuse interstitial pulmonary pattern suggestive of cardiogenic pulmonary oedema. Consider feline cardiomyopathy such as HCM and development of decompensated cardiac disease. Normal postprandial gastrointestinal tract Coxofemoral joint osteoarthrosis. Radiographs are negative for demonstrating any musculoskeletal or vertebral abnormalities to explain the clinical presentation. Comments / Recommendations: Findings strongly support a cardiogenic cause of the pulmonary changes and clinical presentation.

Current medications: Furosemide 2 mg/kg iv, clopidogrel 17.5 mg SID PO.

Blood Pressure: N/A.

Sedation used: Not required to complete full diagnostic ultrasound.

Pertinent previous ultrasound results: No previous.

STAT: Requested.

Imaging performed by: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	7.3 kg	NM	0.51	1.45	0.66	41	84
FELINE CARDIAC PARAMETERS	**LA/AO** (M-mode)	**LA/AO HEART BASE** (Sisson)	**LAD** LA MAX 4 Chamber		**LVOT VEL.** (m/s)	**RVOT VEL.** (m/s)	**IVRT** (m/)

NORMAL PARAMETER	<1.5	1.6	0.7-1.7	<1.6	<1.3	40-60
PATIENT	NM	1.36	1.66	2.5	1.5	NM
Adapted from June Boon,Veterinary Echocardiography,1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705						

Cardiac Presentation

The left atrium is normal in dimension. There are no distinct left atrial thrombi/clots or spontaneous echo contrast appreciated. The left ventricle is normal in dimension, with mild concentric free wall hypertrophy, and no evidence of restriction. Left ventricular systolic function is normal, with adequate contractility based on fractional shortening and systolic left ventricular dimensions. The right atrium and ventricle are subjectively normal in dimension and systolic function. The anterior and posterior mitral and tricuspid valve leaflets presented normal linear structure, extension in systole, and union in diastole without regurgitation. There is no evidence of systolic anterior mitral motion documented. The left ventricular outflow tract demonstrated normal laminar flow and subjective structural valvular integrity. The visible aorta is unremarkable. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and appropriate diameter and distensibility. There is no evidence of semilunar valve insufficiency or pulmonary hypertension documented. There is no pericardial, pleural, or free peritoneal fluid noted.

ULTRASONOGRAPHIC FINDINGS

- These findings identify LV hypertrophy, in the absence of an outflow tract obstruction, consistent with hypertrophic cardiomyopathy (HCM). While the absence of atrial dilation confounds the diagnosis of congestive heart failure, the history, radiographic description, and response to diuretics, makes congestive heart failure a reasonable differential for the clinical/radiographic signs. Cats with atrial dilation significant enough to result in congestive heart failure are also at risk of arterial thromboembolism.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

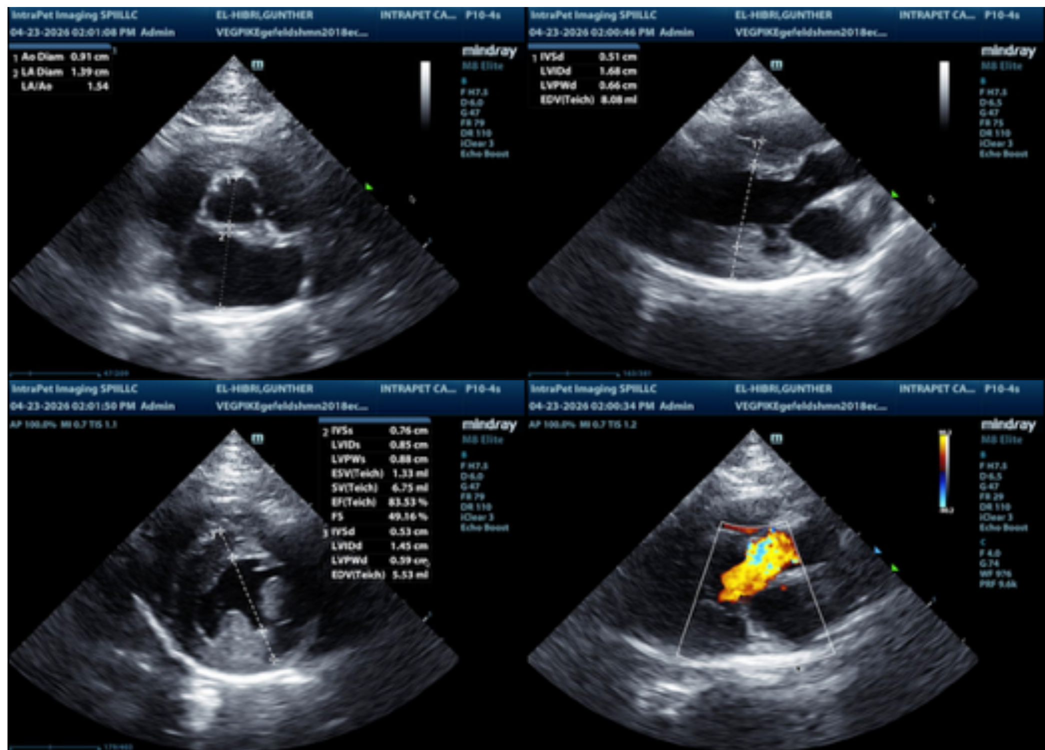
Continued therapy for CHF is indicated, to include Lasix (2mg/kg BID), and enalapril (0.5mg/kg q24, assuming normal blood pressure and kidney function). A systemic blood pressure and thyroid panel (to include a total T4 and free T4 by ED) are recommended to rule out systemic hypertension and hyperthyroidism as a cause for the left ventricular hypertrophy, respectively. If normal, then the left ventricular hypertrophy is secondary to primary hypertrophic cardiomyopathy. A repeat evaluation is recommended in 1-2 weeks, at which time the blood pressure, chemistry, thoracic radiographs should be repeated. In addition, continued Plavix (18.75mg q24) +/- rivaroxaban (2.5mg q24) is recommended given the possibility of thromboembolism. Due to the bitter taste of this medication, it may be best to place it in an empty gelatin capsule or use products such as a Pill Pocket. A repeat echocardiogram, blood pressure, chemistry, and thoracic radiographs are indicated in another 3-6 months, or sooner if the condition worsens.

Anesthesia considerations:
Anesthesia should be avoided until signs of congestion have resolved. If anesthesia is necessary, then alpha-2 agonists, ketamine, high dose acepromazine, and Telazol should be avoided. If an ACE inhibitor (enalapril, benazepril) or spironolactone is being given, it should not be administered on the morning of general anesthesia. Other cardiac medications should be administered per the normal dosing schedule. Anesthetic IV fluid use should be limited to < 3 ml/kg/hr and, if IV fluid therapy is administered during the procedure, a 1 mg/kg dose of IM Lasix should be administered when the patient is awake and standing in recovery. A

shorter anesthetic duration will reduce the risk of complications. Pre-oxygenation is advised. Premedication with an opioid (i.e., butorphanol, hydromorphone, oxymorphone) with or without a benzodiazepine is generally the safest protocol. An induction agent such as Propofol, alfaxalone, or diazepam/etomidate can be used to effect. Maintenance of anesthesia with isoflurane or sevoflurane is reasonable.

Diet:
A high-quality food from Hills, Royal Canin, Science Diet, Eukanuba, Iams, or Purina that is highly palatable with adequate protein and calories for maintaining optimal body condition with mild dietary sodium restriction (<100 mg/100 kcal) is recommended. Consider omega-3 fatty acid supplementation.

Activity:
Avoid strenuous activity



The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. 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.

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