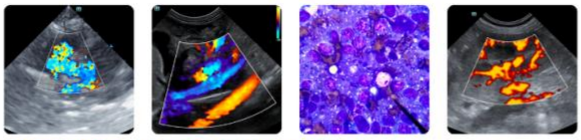


DATE

04/17/26

PATIENT

Emmi Fowler

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

01/19/11

WEIGHT

11 pounds

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

HOSPITAL NAME

Chadwell Animal Hospital

REFERRING VET

Dr. Schaupp

INVOICE

15215

PRESENTING CLINICAL SIGNS

History: Recheck echo as recommended. History of Hypertrophic Cardiomyopathy (obstructive) with cardiac arrhythmia. Pet is asymptomatic, doing very well. Grade III/IV systolic murmur
Pertinent abnormal PE/Chem/CBC/UA Results: Labwork attached.
Current medications: Atenolol 25 mg/ml - 0.25 ml PO QD, Lasix 20 mg/ml - 0.25 ml PO BID
Sedation used: Not required to complete full diagnostic ultrasound.
Pertinent previous ultrasound results: Yes. See attached.
STAT: Declined at this time.
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	5.0	150	0.61	1.62	0.67	43	73
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	1.94	2.43		2.6	0.7	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 moderately enlarged. There are no distinct left atrial thrombi/clots or spontaneous echo contrast appreciated. The left ventricle is normal in dimension, with static mild to moderate hypertrophy, and no evidence of restriction. The endocardium is persistently hyperechoic with evidence of fibrosis. Left ventricular systolic function is normal, with adequate contractility. The right atrium and ventricle are subjectively normal in dimension and systolic function. There is evidence of systolic anterior motion of the mitral valve with mild mitral regurgitation. The tricuspid valve leaflets presented normal linear structure, extension in systole, and union in diastole without regurgitation. The left ventricular outflow tract demonstrated turbulent 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. Few scattered B-lines are noted in the pulmonary parenchyma. There is no pericardial, no pleural, and no free peritoneal fluid noted.

ECG

There is a six-lead ECG available for review. The underlying rhythm is regular at an average rate of 150bpm. The rhythm appears to be sinus in origin with narrow QRS complexes (<40ms). There is evidence of the previously noted ventricular ectopy and no atrial ectopy or conduction delay/block identified. This is most consistent with a normal sinus rhythm.

ULTRASONOGRAPHIC FINDINGS

- These findings identify LV hypertrophy in the setting of an outflow tract obstruction, consistent with the history of hypertrophic obstructive cardiomyopathy (HOCM). There has been no significant progression in the wall thickness, however the left atrium has mildly progressed since the previous evaluation. The ventricular arrhythmia remains controlled

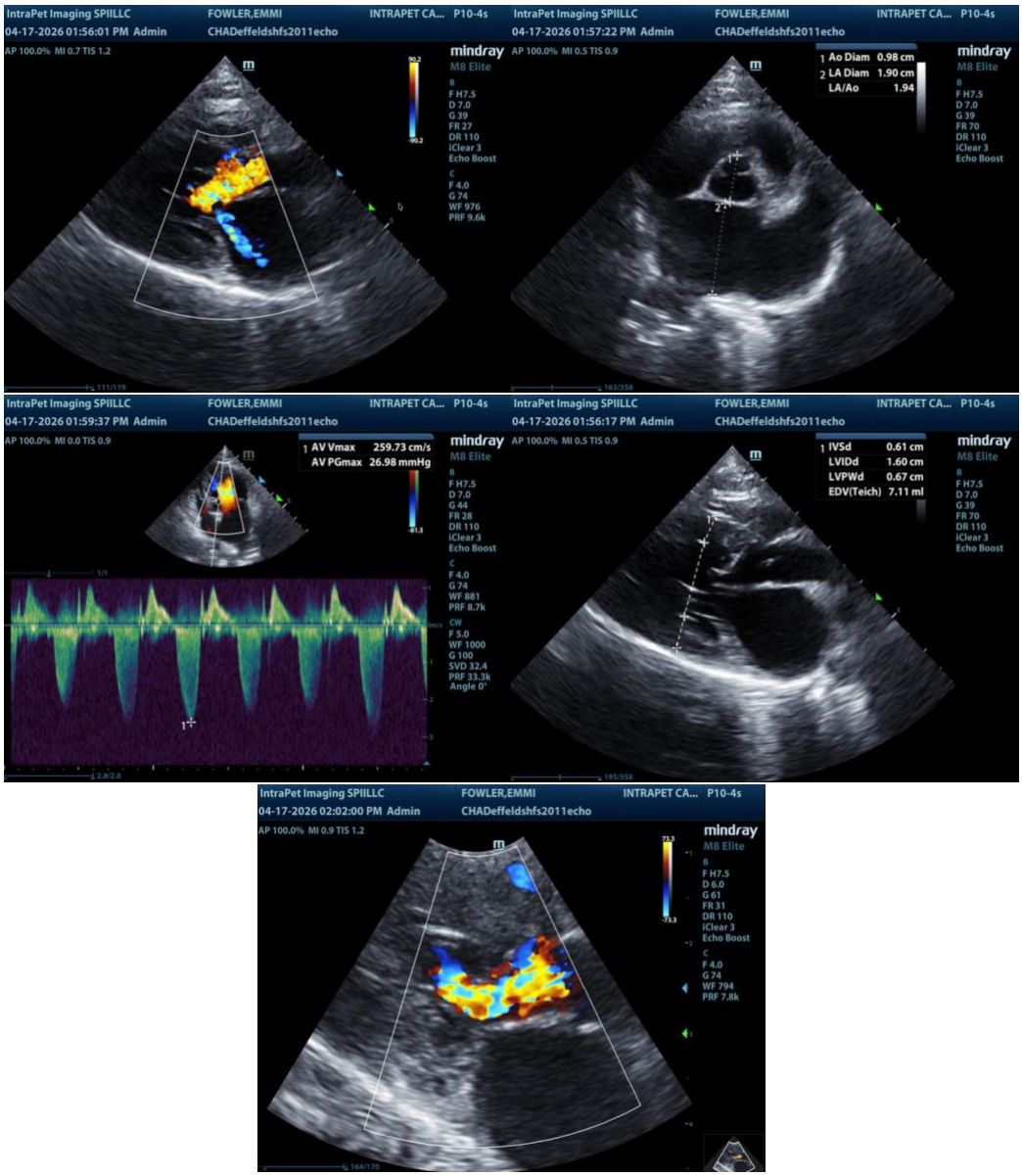
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Continued therapy for CHF is indicated, and should include Lasix (5mg BID) and atenolol (6.25mg SID), with the addition of enalapril (2.5mg SID, assuming normal blood pressure and kidney function). There are significant dilemmas regarding additional therapy, as Vetmedin is indicated in patients with heart failure, however pimobendan carries a labeled contraindication in the setting of LV hypertrophy and outflow tract obstruction. Therefore, we will continue with just the furosemide, enalapril, and atenolol unless clinical signs change. The addition of Plavix (18.75mg q24) is also recommended due to the left atrial progression. 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. If not already performed, current thoracic radiographs, doppler blood pressure, and chemistry panel are recommended. A repeat echocardiogram, blood pressure, chemistry panel, and thoracic radiographs are indicated in another 6 months, or sooner if the condition worsens.

Anesthesia considerations:
Anesthesia should be avoided. 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.

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

info@SonoPath.com