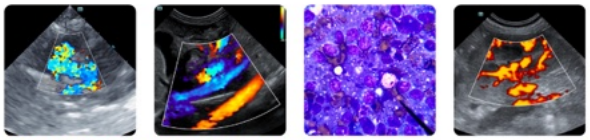


PATIENT

Hugo Stebok

SPECIES

Canine

BREED

Boxer

SEX

Neutered male

AGE

10 years

WEIGHT

86.8 lbs

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Brandon Holmes

HOSPITAL NAME

West Newton AC

REFERRING VET

Dr. Stafford

INVOICE

71445

DATE

2/10/26

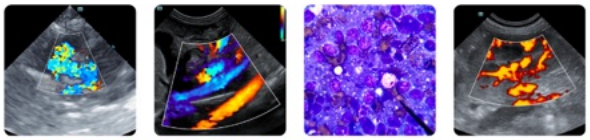
PRESENTING CLINICAL SIGNS

- Hugo started to have syncopal collapsing episodes that are 2-3 times a day. Radiographs showed heart enlargement and the left atrium was enlarged as well. Interstitial pattern noted as well.
- Fast scan of the abdomen did not show any masses on the spleen
- Arrhythmia noted as well (Ventricular in origin) attached to document as well.
- Patient is currently on enalapril, lasix, and Pimobendan. I did talk with the owner about starting digoxin as well if pimo is expensive with the thought of using it as an antiarrhythmics treatment as well (just saw in my notes that is used for supraventricular and not ventricular)
- For the arrhythmia possibly starting on Mexiletine. Abnormal PE/Chem/CBC/UA Results: Grad 2/6 left systolic apical murmur the rest of the exam unremarkable. Previous veterinarian thought they heard crackles and wheezes and based on rads started the lasix

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The left atrium is moderately enlarged. The left ventricle is mildly enlarged, with severely reduced systolic function. The right atrium and ventricle are normal in dimension, with normal systolic function. The anterior and posterior mitral valve leaflets are appropriately thin, but do not completely appose during systole due to the annular dilation. There is moderate mitral regurgitation identified. The tricuspid valve leaflets are appropriately thin with adequate apposition, intact chordae, with mild tricuspid regurgitation and no evidence of pulmonary hypertension. The left ventricular outflow tract demonstrated normal laminar flow and the visible aorta is unremarkable. The right ventricular outflow tract assessment revealed normal laminar flow, and appropriate diameter and distensibility. There is no pulmonic and no aortic valve insufficiency identified. There is no visible pericardial, pleural, or free peritoneal fluid documented. No evidence of hepatic venous congestion is noted. The cardiac chambers, pericardial and visible extra-cardiac regions were free of masses, spontaneous echo contrast, or thrombi.

CANINE CARDIAC PARAMETERS	Body Weight kg	HR BPM	LAD 4 ch Long	RAD 4 ch Long	La/Ao Heart Base	LVIDd	LVIDs
NORMAL PARAMETER		50-100			<1.6		
PATIENT	39.45 kg	NM	6.38	3.18	1.92	5.83	5.08
CANINE CARDIAC PARAMETERS	**FS**	**EPSS**	**PV V MAX (m/s)**	**AV V Max (m/sec)**	**MR Vmax**	**TR Vmax**	**RPA distensibility (normal >30%)**
NORMAL PARAMETER	28-40	<0.6	0.7-1.6	0.7-1.7	4.5-5.5	< 2.7	
PATIENT	13	NM	0.7	NM	NM	3.1	NM



PATIENT

Hugo Stebok

SPECIES

Canine

BREED

Boxer

SEX

Neutered male

AGE

10 years

WEIGHT

86.8 lbs

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Brandon Holmes

HOSPITAL NAME

West Newton AC

REFERRING VET

Dr. Stafford

INVOICE

71445

DATE

2/10/26

ULTRASONOGRAPHIC FINDINGS

These findings identify reduced left ventricular function in the setting of an enlarged left ventricle. Intrinsic myocardial dysfunction (ie DCM) is a concern, however given the breed and history of ventricular arrhythmias, arrhythmogenic right ventricular cardiomyopathy is considered most likely. Other possibilities, including primary valve disease with secondary ventricular changes or myocardial depressant effects of systemic disease must also be considered. It would also be important to verify that the owners are not feeding a grain-free, exotic, or boutique diet, as a secondary nutritional cardiomyopathy must also be considered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Continued therapy for CHF is recommended, with Lasix (2mg/kg BID), enalapril (0.5mg/kg BID assuming normotension and lack of renal insult), and Vetmedin (.25-.35mg/kg BID). With the history of syncope and ventricular arrhythmia, a 24-48 hour Holter monitor is recommended to evaluate the frequency of the arrhythmia in association with the episodes. Alternatively, mexiletine (4-6mg/kg TID) could be started empirically. A repeat chest X-rays, BP, and chemistry should be performed now for a baseline, and again in 1-2 weeks. A repeat echo is indicated in 3 months. Owners should monitor resting respiratory rate at home. Values above 30 breaths/minute or an increase in respiratory rate 10% above baseline should prompt veterinary re-evaluation.

Anesthesia considerations:
Anesthesia should be avoided until manifestations of congestive heart failure (edema/effusion/respiratory distress) have resolved. Following that time, 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. Dobutamine (2.5-10 µg/kg/min as a CRI, starting at 2.5 µg/kg/min and increasing the dosage incrementally) may be used in lieu of fluid boluses to augment systemic blood pressure.

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. Avoid any boutique, exotic, or grain-free diets.

Activity:
Moderate physical activity (meandering walks, exploring the backyard, playing with toys inside, getting excited when family gets home, etc.) is encouraged, but periods of strenuous aerobic activity (jogging, strenuous outdoor ball play, prolonged play at the dog park, etc.) should be avoided, especially during periods of high heat (> 80 F) and humidity. Dogs with heart disease tend to tolerate cool and cold temperatures much better than high temperatures. Avoid sudden increases in activity (e.g. 2 block

PATIENT

Hugo Stebok

SPECIES

Canine

BREED

Boxer

SEX

Neutered male

AGE

10 years

WEIGHT

86.8 lbs

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Brandon Holmes

HOSPITAL NAME

West Newton AC

REFERRING VET

Dr. Stafford

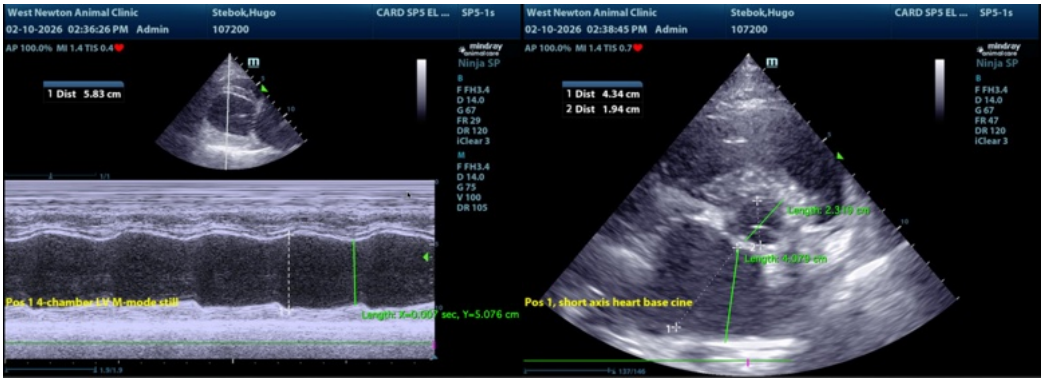
INVOICE

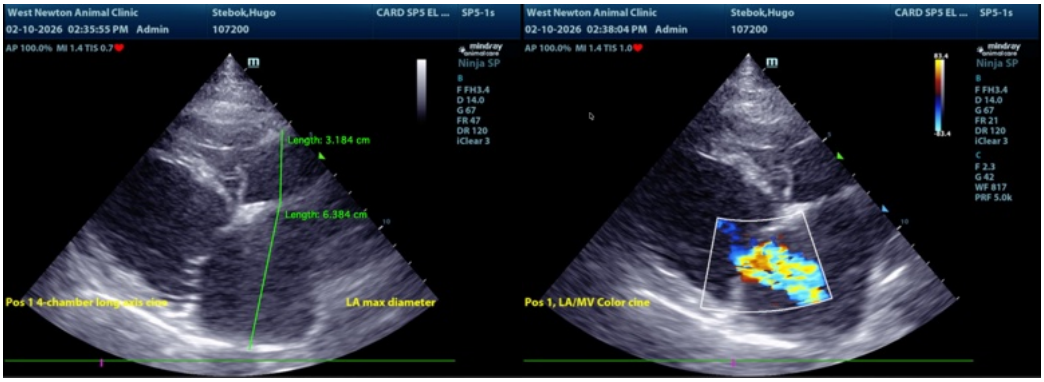
71445

DATE

2/10/26

walks during the week but 2 mile walks followed by 30 minutes at the dog park on the weekends) as this may be difficult for the cardiovascular system to deal with.





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