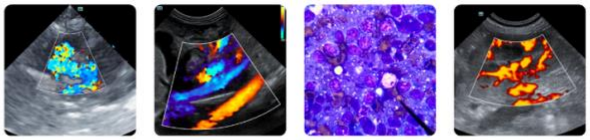


PATIENT

Roxie Wadsworth

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Spayed Female

AGE

11 Years

WEIGHT

11.2 lbs

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Dr. Brian Hougentogler, DVM

HOSPITAL NAME

K-Vet Animal Care

REFERRING VET

Dr. Brian Hougentogler, DVM

INVOICE

16353

DATE

05/18/26

PRESENTING CLINICAL SIGNS

Heart murmur grade IV/ V, abnormal breathing, coughing, acute onset paralysis, regular rhythm Patient was seen at ER for coughing, wheezing, trouble breathing, and weak in the hind legs; patient diagnosed with CHF and started on Furosemide and Pimobendan. PE: BAR; BCS 4/9; moderate ataxia in the hind legs; dental calculus with halitosis; nuclear sclerosis OU; grade IV/VI systolic murmur with PMI at left parasternal position; all four feet have swollen, crusty, ulcerations at the nail bed. Pt was started on Pimobendan 1.5 mg BID; Furosemide 12.5 mg BID - Doing well since starting medication.

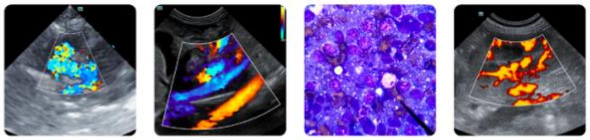
Temperature: _101.3_ Pulse: _130_ RR: _40_ mm: _pink_ Pulse Quality: _regular_ Change in BCS: _4/9_ Attitude/Demeanor: _BAR_ Systolic BP: _154 (Doppler)_ Creatinine: _0.6_

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	BW	HR BPM	LAD 4 ch Long	RAD 4 ch Long	La/Ao Heart Base	LVIDd	LVIDs
NORMAL PARAMETER		50-100			<1.6		
PATIENT	5.09	NM	3.4	1.46	1.79	2.53	0.72
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	72	0.2	1.5	1.4	6.0	<2.0	35

Cardiac Presentation

The left atrium is severely enlarged. The left ventricle is normal in dimension, with normal systolic function. The right atrium and ventricle are normal in dimension, with normal systolic function. The anterior and posterior mitral valve leaflets are thickened and redundant consistent with myxomatous changes, and there is severe prolapse. There is moderate mitral regurgitation identified. The tricuspid valve leaflets are appropriately thin with adequate apposition, intact chordae, no significant 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, with appropriate main pulmonary artery diameter and right pulmonary artery 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. No gross pulmonary pathology is identified on the current thoracic radiographs, suggesting adequate control of the congestive heart failure.



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ECG

The file is not able to be downloaded as submitted. I am happy to provide an addendum if the file can be resubmitted as a PDF.

ULTRASONOGRAPHIC FINDINGS

- These findings are consistent with degenerative mitral valve disease with significant hemodynamic effects. Given the degree of chamber enlargement and recent thoracic radiographs, congestive heart failure is a likely explanation for the clinical/radiographic signs, consistent with ACVIM Stage C.

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). A repeat BP, and chemistry should be performed now for a baseline, and again with a repeat echo and chest x-rays 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 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.

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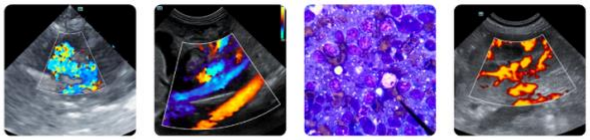

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

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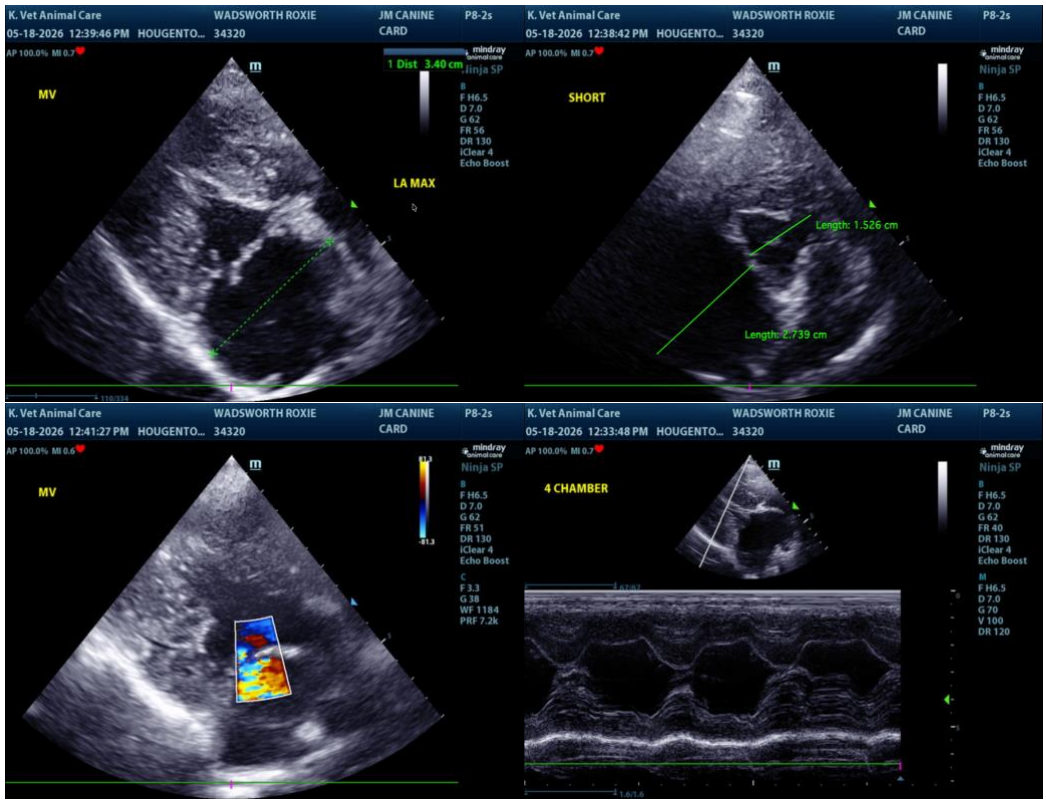

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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