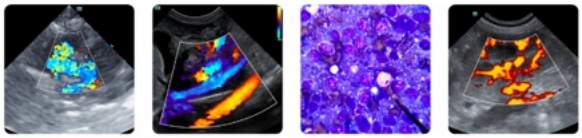

PATIENT

Tate Hobson

SPECIES

Canine

BREED

Bulldog Cross

SEX

Neutered male

AGE

5 years

WEIGHT

48.2 lbs

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Andrea Nicastro, DVM, DACVIM

HOSPITAL NAME

On Point AH South

REFERRING VET

Dr. Berger-Bishop

INVOICE

71338

DATE

2/6/26

PRESENTING CLINICAL SIGNS

Presented for vaccine updates and discovered a 4/6 heart murmur. Treated for heartworms in July of 2025 and tested negative for heartworms in August of 2025.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The left atrium is upper limits to mildly enlarged. The left ventricle is mildly enlarged with reduced systolic function. The right atrium and ventricle are subjectively normal in dimension, with normal systolic function. The anterior and posterior mitral valve leaflets are thickened with mild regurgitation noted. The tricuspid valve leaflets are thickened with mild tricuspid regurgitation. The left ventricular outflow tract demonstrated turbulent flow with a sub-valvular ridge and mild aortic insufficiency. The visible aorta is unremarkable. Pulmonary outflow tract assessment is normal with laminar flow, an appropriate main pulmonary artery dimension, and trace pulmonic insufficiency. There is no visible pericardial, pleural, or free peritoneal fluid 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	21.91 kg	120	4.57	2.5	1.32	4.59	3.6
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	22	0.7	1.6	6.8	7.3	5.7	NM

ECG:
There is a six-lead ECG available for review. The underlying rhythm is regular at an average rate of 120bpm. The rhythm appears to be sinus in origin with narrow QRS complexes (<70ms). There is no atrial or ventricular ectopy and no conduction delay or block identified. This is most consistent with a normal sinus rhythm.

ULTRASONOGRAPHIC FINDINGS

These findings are consistent severe sub-valvular aortic stenosis. The concurrent mitral regurgitation is likely secondary to mitral valve dysplasia, but acquired degenerative mitral valve disease cannot be excluded. The enlarged left sided dimensions with reduced function is likely a chronic effect of the severe outflow tract obstruction. The patient also has severe pulmonary hypertension likely from a

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combination of left-sided heart disease and possibly underlying lung disease. Correlate these findings with thoracic radiographs.

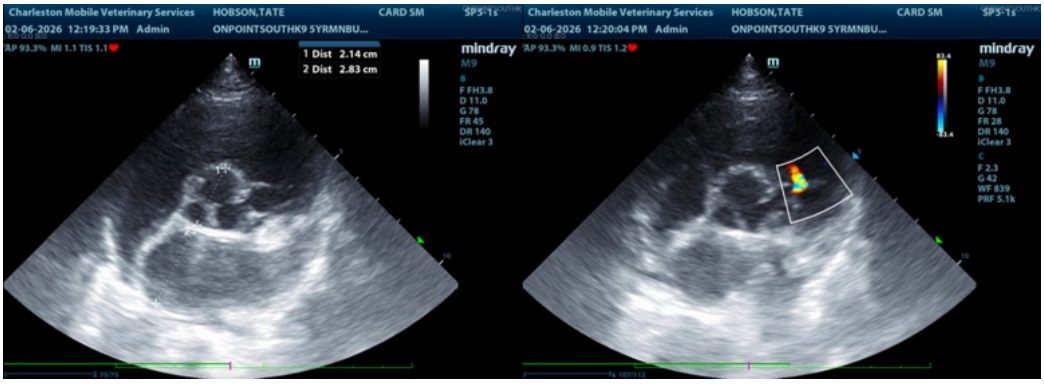
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are significant dilemmas regarding therapy in this case, as atenolol is often used in the setting of SAS, and Vetmedin is indicated in patients with heart failure. Unfortunately, there are contraindications to the atenolol (reduced systolic function) and the pimobendan carries a labeled contraindication in the setting of LV hypertrophy/LVOT obstruction. At this time, we will continue with just atenolol (1-2mg/kg BID) and enalapril (.5mg/kg BID) unless his clinical signs change, or response to initial therapy is inadequate. Given the degree of pulmonary hypertension, sildenafil (2 mg/kg BID) is also recommended. A repeat evaluation is recommended in 1-2 weeks, at which time the blood pressure, chemistry, chest X-rays should be repeated. A repeat echo is indicated in another 3 months, or sooner if his condition worsens.

Anesthesia:
If anesthesia is necessary, then alpha-2 agonists, ketamine, high dose acepromazine, and Telazol should be avoided. Skip any ACE-inhibitor (if receiving) on morning of anesthesia. Fluid therapy during anesthesia should be considered at a reduced rate (e.g., 5 ml/kg/hour) if possible. A shorter anesthetic duration will reduce the risk of complications. Pre-oxygenation is advised. Pre-medication 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 is reasonable.

Activity:
Avoid overly strenuous activity.



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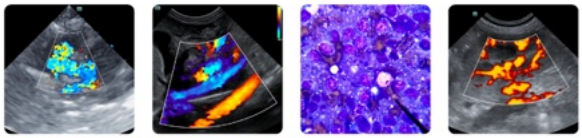

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

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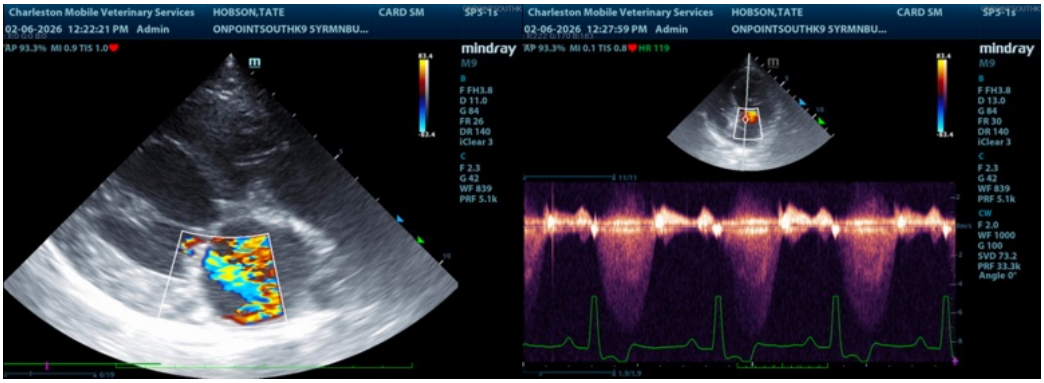

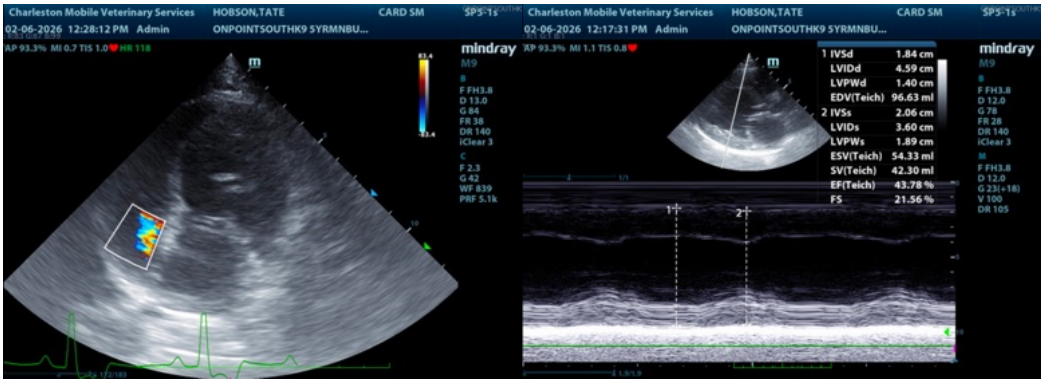

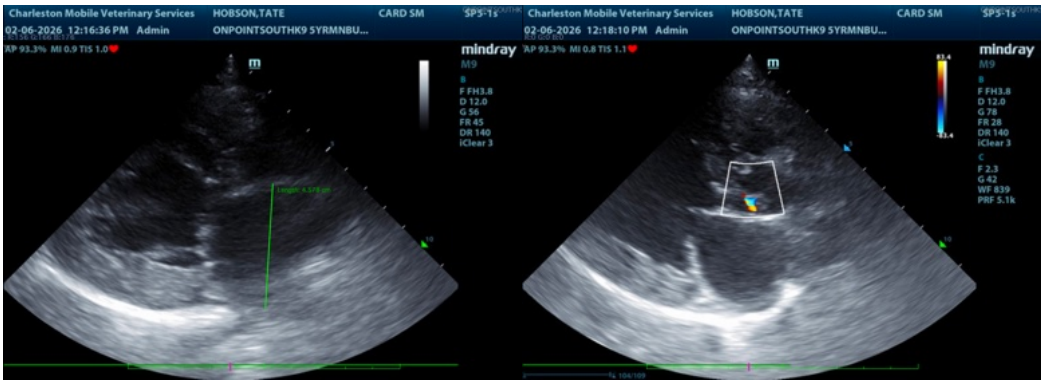

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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