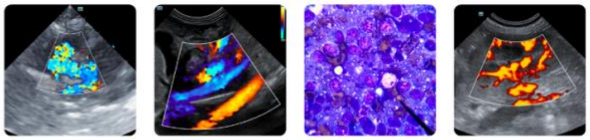

PATIENT

Sissy Smith

SPECIES

Canine

BREED

Australian Shepherd

SEX

Spayed Female

AGE

14 Years

WEIGHT

34 pounds

INTERPRETED BY

Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Bill McGee, DABVP

HOSPITAL NAME

Bridgeport Animal Hospital PLLC

REFERRING VET

Jeff Williams, DVM

INVOICE

15269

DATE

04/20/26

PRESENTING CLINICAL SIGNS

History of coughing then having a syncopal episode, more than one occasion

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	UE	--	1.29	1.26	23.53	--	NM
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**LAD** LA MAX 4 Chamber	**LVIDd** Avg; 2D and m-mode short axis (cm)	**LVIDs** Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	NM	1.41	0.93	15.45	3.5	3.4	2.6

Cardiac Presentation

The rhythm is irregular. The mitral valve leaflets are mildly thickened with mild mitral regurgitation posteriorly directed. There is **no** prolapse of the mitral valve leaflets. The left atrial size is normal. Left ventricular internal dimensions during diastole are within normal limits and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size without tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension based upon tricuspid regurgitant velocities. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology and the corresponding outflow velocities are within normal limits. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Two instances of second-degree atrioventricular block during the echocardiogram.
- Degenerative valve disease ACVIM stage B1.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has degenerative valve disease, ACVIM, stage B1 and normal left atrial size. Cardiac medications are not needed for this condition at this time, nor is the heart contributing to the cough based upon the images provided. The patient did have two instances of second-degree AV block during the echocardiogram. It is not reported that the patient was sedated. However, if the patient was sedated, this could contribute to the AV block. If not, I would recommend performing an atropine

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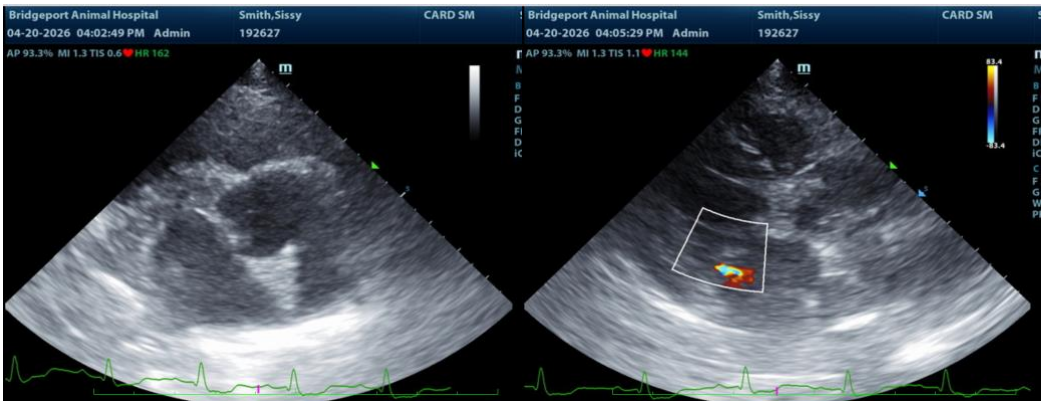
response test.

- 0.04mg/kg atropine SQ, IM, or IV
  - SQ: wait 20-30 minutes for a response
  - Im: wait 15-20 minutes for a response
  - IV: keep the patient attached to ECG and response is seen within 5 minutes. There will be a reflex bradycardia after given IV
- Positive response: HR > 160-180

I also recommend obtaining chest radiographs with the history of the cough. Some patients can have transient increases in vagal tone and collapse after coughing episodes. However, other differentials need to be ruled out. I recommend ensuring full blood work is normal and blood pressure is normal. Other diagnostics to consider include an abdominal ultrasound and a possible neurologic evaluation. If the patient does not respond to atropine, then the rhythm is more associated with a conduction disorder and further evaluation with a cardiologist is recommended. If the patient does respond to atropine, I recommend further investigation as to why the patient has elevated vagal tone.
A recheck echo for the degenerative valve disease is recommended in 10 to 12 months.



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.

Sara Brethel DVM, DACVIM (Cardiology)

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