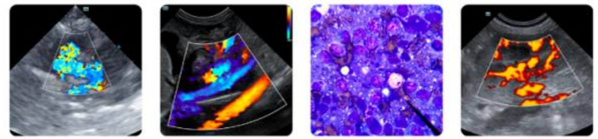


PATIENT

Penny Jennie

SPECIES

Canine

BREED

Havanese

SEX

Spayed Female

AGE

11 Years

WEIGHT

5.54 kg

INTERPRETED BY

Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Wilvet South

REFERRING VET

Dr. Manes

INVOICE

15874

DATE

05/07/26

PRESENTING CLINICAL SIGNS

Clinical Exam Findings: Presentation: Transfer from Willakenzie (resp distress). Symptoms: Coughing/honking, lethargic. Abnormal findings in physical exam" Oral Cavity: Tartar moderate, muddy/mildly cyanotic mm. Cardiovascular: Grade 4 out of 6 heart murmur. Respiratory: Abnormal: Tachypneic with increased effort. ABNORMAL Labwork Values. Emailed over lab values. For ECHO Only: Blood Pressure. 143/65 MAP(88) HR/RR/BP: 130/60(pant)/143/65 MAP (88) Is there a Heart Murmur? If so, please grade. Grade 4 out of 6 Current Medications in clinic: Butorphanol Injection 10mg/ml per ml given 0.11 ml @ 9am. Also given Furosemide 50mg/ml injection per ml given 0.22ml at 9am

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

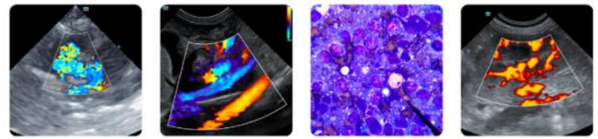
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.79		2.79	2.69	48.48	--	0.19
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (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	--	--	5.54	3.4	3.3	1.7

Cardiac Presentation

The mitral valve leaflets are moderately thickened with severe mitral regurgitation posteriorly directed. There is moderate prolapse of the mitral valve leaflets. The left atrial size is severely increased. Left ventricular internal dimensions during diastole are increased and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size with mild 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

- Degenerative valve disease with severe left atrial enlargement.
- Severe mitral regurgitation.



PATIENT
Penny Jennie

SPECIES
Canine

BREED
Havanese

SEX
Spayed Female

AGE
11 Years

WEIGHT
5.54 kg

INTERPRETED BY
Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Sara Hansen

HOSPITAL NAME
Wilvet South

REFERRING VET
Dr. Manes

INVOICE
15874

DATE
05/07/26

- Insignificant tricuspid regurgitation.

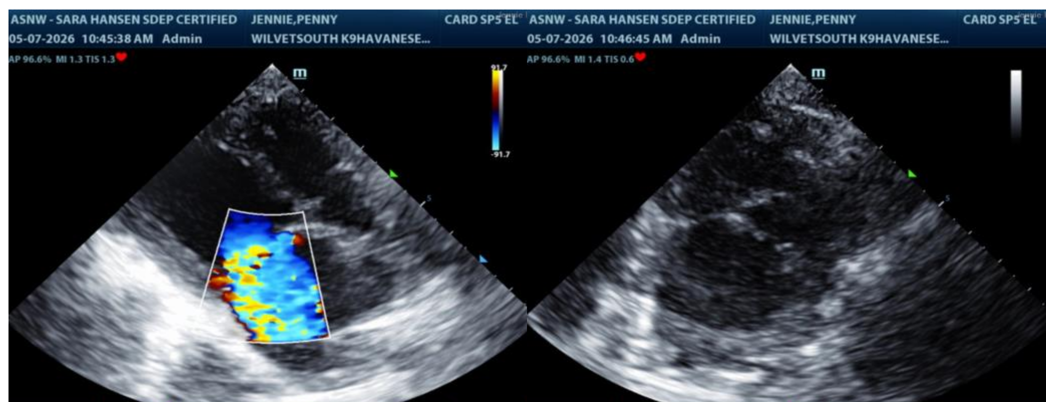
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the patient's history, there is concern for cardiogenic pulmonary edema. Chest radiographs are recommended to help confirm, however, given the described clinical condition, I would recommend a furosemide trial prior to stressing the patient further to obtain the radiographic images.

There are reported signs of congestive heart failure and the patient has degenerative valve disease stage C. If the patient requires oxygen therapy, Furosemide and Pimobendan therapy is recommended. Furosemide at a starting dose of 0.50 mg/kg PO q6. This leads to a 3 mg per kg starting dose. Oftentimes this is enough to get patients out of active congestive heart failure and then transitioning them to the oral dose of about 2 mg/kg twice daily. Pimobendan therapy should be started now as it is considered an emergency drug and then continued at the same dose of 0.27 to 0.32 mg/kg twice daily. These will likely be lifelong therapies. Recheck chest radiographs is recommended in 7-10 days along with blood work and a blood pressure. If the patient is doing well and the kidney values are within normal limits, recommend starting an ACE inhibitor (enalapril or benazepril 0.5mg/kg POq12-24) and spironolactone (2mg/kg PO q24). 2-3 weeks after starting ACE inhibition, repeat kidney values are recommended. If the patient is doing well, a recheck echocardiogram is recommended in 4-6 months. Blood work to assess these patients is recommended every 4-6 months.

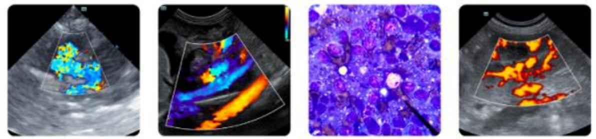
The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

If the patient continues to decompensate despite this therapy, then additional diagnostics and differentials need to be prioritized. However, given the echo and the patient's clinical condition, heart failure is considered most likely at this time.



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.



PATIENT
Penny Jennie

SPECIES
Canine

BREED
Havanese

SEX
Spayed Female

AGE
11 Years

WEIGHT
5.54 kg

INTERPRETED BY
Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Sara Hansen

HOSPITAL NAME
Wilvet South

REFERRING VET
Dr. Manes

INVOICE
15874

DATE
05/07/26

Sara Brethel DVM, DACVIM (Cardiology)

info@SonoPath.com