

PATIENT

Cherry Ertel

SPECIES

Canine

BREED

Yorkie

SEX

Spayed Female

AGE

13 Years

WEIGHT

2.9 kg

INTERPRETED BY

Sara Brethel, DVM,
 DACVIM (Cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Main Street AH

REFERRING VET

Dr. Morris

INVOICE

35387

DATE

1/13/26

PRESENTING CLINICAL SIGNS

History: coughs approx. 30 times per day. Coughs less when owner is less excited When in for exam July 2025 dry honking/cough when trachea palpated No murmur detected Current Medications Hydrocodone 1mg/ml -0.6ml BID, Metacam 3kg dose SID as needed, Butorphanol 5mg - 1/2 BID as needed.

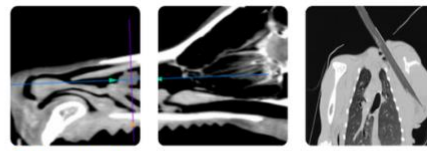
Abnormal PE/Chem/CBC/UA Results: Rads and lab work attached CBC Retic 22 (23-28) WBC 4.3 (5-16) Neut 2.16 (3-9) Biochem TP 76 (55-75) Glob 41 (24-40) ALT 177 (18-121) ALKP 194 (5-160) Radiographic Findings M1 collapsing trachea at thoracic inlet, M1-M2 cardiac enlargement right side with increased vertical movement of cardiac base. M2 small intestine gas, M1 hepatic enlargement, M2 aerophagia Primary Question to Be Answered in This Exam reason for heart enlargement and reason for chronic coughing.

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	Underest	2.86	--	1.45	47.36	--	--
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	103	1.28	0.89	2.9	2.0	1.9	1.0

Cardiac Presentation

The mitral valve leaflets are mildly thickened with mild mitral regurgitation posteriorly directed. There is no prolapse of the mitral valve leaflet. 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 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.



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ULTRASONOGRAPHIC FINDINGS

- Degenerative valve disease, ACVIM stage B-1 (mitral and tricuspid)

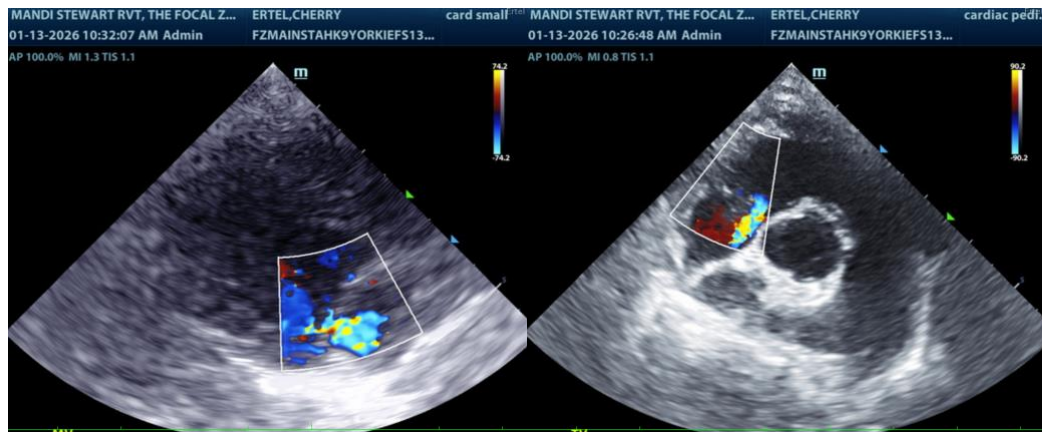
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has degenerative valve disease ACVIM stage B1 and no cardiac medications are indicated at this time. Since this can be a progressive condition, serial monitoring is recommended. A recheck echocardiogram is recommended in 6 months. A sooner recheck is recommended if the patient develops cardiovascular clinical signs or the heart murmur is worsening in intensity. Elective anesthetic procedures should be well tolerated.

With the history of the patient's coughing, I do not think a primary cardiac reason is identified, however, there are mild changes to the mitral and tricuspid valve, and serial monitoring is recommended. I recommend ensuring the patient is heartworm negative as well and up to date on year-round heartworm prevention.

Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated.

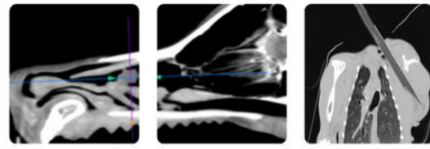
Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.



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)



PATIENT info@SonoPath.com

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