



PATIENT

Chica Archuleta

SPECIES

Canine

BREED

Chihuahua

SEX

Female Spayed

AGE

9 years

WEIGHT

8.16lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Dana Alterman,
RDCS, LVT

HOSPITAL NAME

Eubank Animal Clinic

REFERRING VET

Dr. Garb

INVOICE

29251

DATE

2/27/23

PRESENTING CLINICAL SIGNS

History: Presented for labored breathing. History of murmur (grade 5/6 left sided). Suspect acute CHF. Crackles in lungs.

-Current medications: Today received Furosemide at 2mg/kg IV once at presentation and Pimobendan 1.25mg PO today for the first time.

-Abnormal PE/Chem/CBC/UA Results: Potassium: 3.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only. Mild cardiomegaly; equivocal for CHF.

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 50mm/s, 20mm/mV. The average heart rate is 150bpm (range 130-180bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive. A single APC is identified. No ventricular premature beats, pauses or other dysrhythmias observed.

ECG diagnosis: Normal sinus rhythm with a single APC.

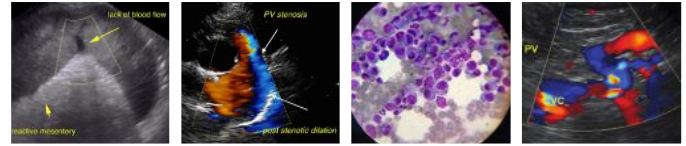
ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>posterior) with prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate left atrial dilation. Mildly increased LV diameter with hyperdynamic myocardial function. The tricuspid valve appears subjectively normal, with no tricuspid regurgitation. Normal right atrial and ventricular diameter. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

CARDIAC CHART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NM	NA	2.0	1.7	64	94	0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	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	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	0.8	1.7	3.7	2.0	2.8	1.0
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002



PATIENT

Chica Archuleta

Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995	40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
	50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

SPECIES

Canine

BREED

Chihuahua

SEX

Female Spayed

AGE

9 years

WEIGHT

8.16lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Dana Alterman,
RDCS, LVT

HOSPITAL NAME

Eubank Animal Clinic

REFERRING VET

Dr. Garb

INVOICE

29251

DATE

2/27/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing moderate mitral regurgitation. Moderate left atrial enlargement indicates there is relatively low risk for imminent complication, however risk for progression to spontaneous congestive heart failure in the future is elevated. No additional issues are identified. The ECG shows a single APC which is not unexpected for a patient in crisis. No treatment is advised at this time.

The radiographs are equivocal for CHF; however, the presenting symptoms may be suggestive. If the patient responded to Lasix therapy, this would be the assumed diagnosis; however, serial films may be necessary to confirm. If suspected, Lasix should be continued going forward with **addition of Spironolactone for survival benefit and potassium sparing properties** (if K is persistently low, a supplement may be necessary). If CHF is considered less likely based upon response, simply Pimobendan is recommended going forward.

Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).

Omega fatty acid supplementation and mild salt restriction may also be of some long term benefit. Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.

Anesthesia is not advised at this time.

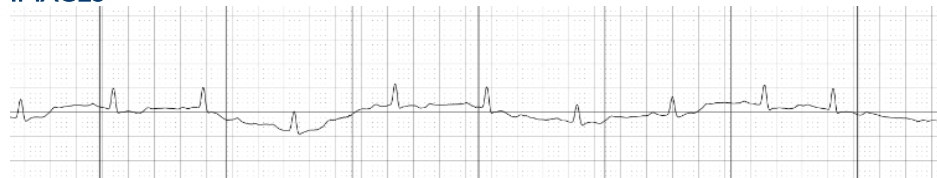
PLAN

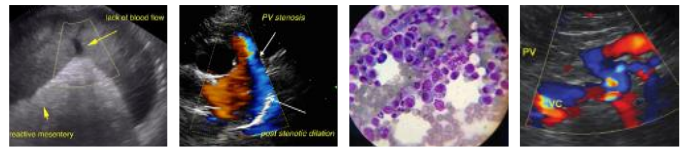
Baseline BP recommended. Continue Pimobendan 0.3mg/kg PO q12h. If CHF is diagnosed based upon response to therapy and/or Radiologist review of the films, continue Lasix 1-2mg/kg PO q12h. Institute Spironolactone 1-2mg/kg PO q12h. Pending BP >130mmHg, institute ACE-I 0.5mg/kg PO q12h. If the response to diuretic has not been complete, serial films are strongly recommended with discontinuation of Lasix.

Monitor renal values and BP every 3-4 months lifelong. Consider tumil-K if persistent hypokalemia.

Recommend monitor for progression with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

IMAGES





PATIENT

Chica Archuleta

SPECIES

Canine

BREED

Chihuahua

SEX

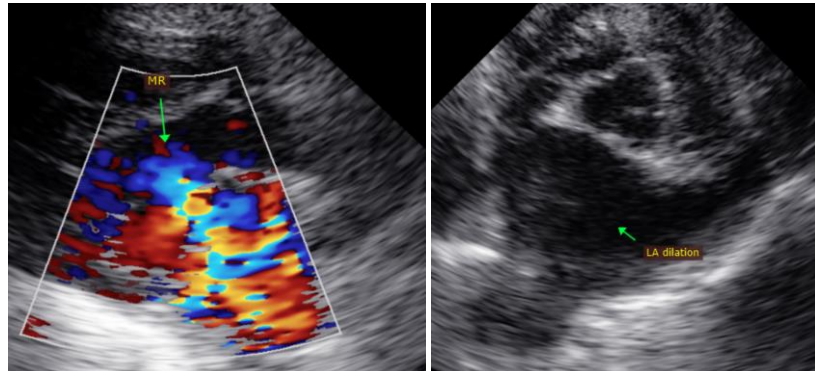
Female Spayed

AGE

9 years

WEIGHT

8.16lbs



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

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Dana Alterman,
RDCS, LVT

HOSPITAL NAME

Eubank Animal Clinic

REFERRING VET

Dr. Garb

INVOICE

29251

DATE

2/27/23