



PATIENT PRESENTING CLINICAL SIGNS

May Saca History: History of possible collapse/passing out/seizure over the weekend; happened 4 times following periods of excitement. Current med: Pimobendan 1.25 mgs 1 tab a.m. 1/2 tab p.m.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Miniature Schnauzer

SEX

Spayed Female

AGE

11 Years

WEIGHT

8.8 Lbs.

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	5.2	1.3	NM	1.72	57.1	91.6	0.25
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	104	1.1	0.93	--	2.8	2.8	--

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

Dr. Gordon

INVOICE

13926

DATE

2/14/22

Cardiac Presentation

The echocardiogram for this patient presented mild to moderate excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Mild deviation of the intraatrial septum, toward the right atrium, suggestive of mild elevated left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis with mild prolapse of the septal leaflet. Doppler indicated measurable moderate eccentric insufficiency. The **left ventricle** presented thicknesses with maintained linear contour with increased left ventricle volume.

The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated mild thickening with mild TV insufficiency on color doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. Brief sonographic assessment of the liver and transdiaphragmatic caudal thorax revealed no overt evidence of hepatic congestion or cranial abdominal ascites. Transdiaphragmatic view revealed comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. Chest radiographs are recommended to rule



PATIENT

out alveolar/lung disease such as neoplasia, thromboembolic disease, chronic inflammatory disease with microconsolidation.

May Saca

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Spayed Female

AGE

11 Years

WEIGHT

8.8 Lbs.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

Dr. Gordon

INVOICE

13926

DATE

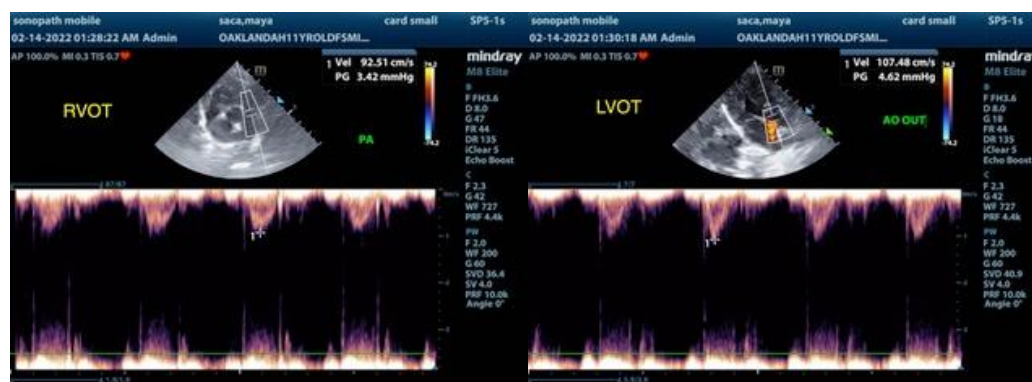
2/14/22

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B-2)
- Mild TR – estimated pulmonary pressure gradient based on measured TR velocity. Not overtly consistent with clinical pulmonary hypertension.
- Transdiaphragmatic comet tail artifact- nonspecific

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur secondary to chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The mild to moderate LA enlargement indicates that the current and future risk, going forward, of complication, is elevated, yet subjectively, the degree of left atrium enlargement was not overtly consistent with cardiogenic pulmonary edema. However, this possibility cannot be excluded. Likewise, the transdiaphragmatic comet tail artifact may suggest concurrent nonspecific lower airway disease. In addition to Pimobendan, Diuretic trial with lowest effective dose of Lasix at 1-2 mg/kg PO BID may be considered, especially if evidence of cardiogenic pulmonary edema. ECG assessment suggested to rule out potential for intermittent to paroxysmal arrhythmia. If continued episodes of syncope, especially during excitement, reassessment of TR for further evaluation of the possible emerging pulmonary hypertension is recommended. Empirically, exercise restriction is advised. A thorough neurological examination suggested, if not done. If patient is stable, recheck echocardiogram suggested in 4-6 months or sooner if clinical signs consistent with left sided congestion arise.





PATIENT

May Saca

SPECIES

Canine

BREED

Miniature Schnauzer

SEX

Spayed Female

AGE

11 Years

WEIGHT

8.8 Lbs.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Oakland AH

REFERRING VET

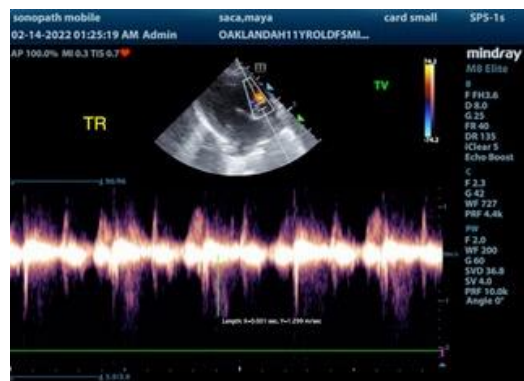
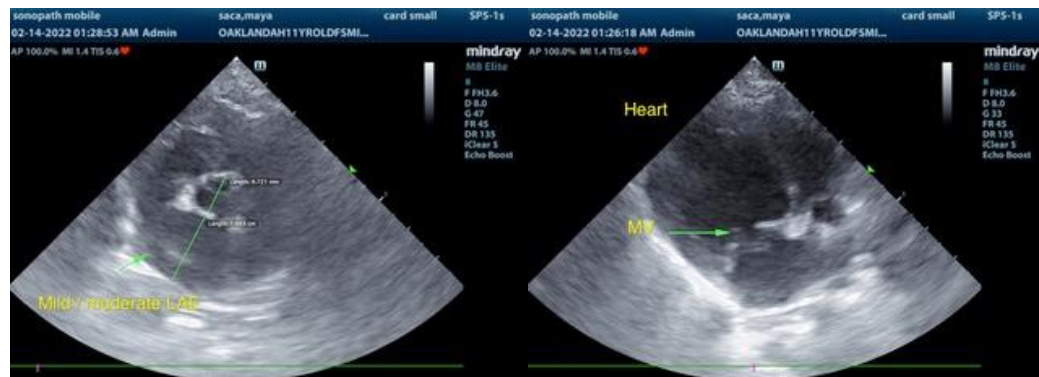
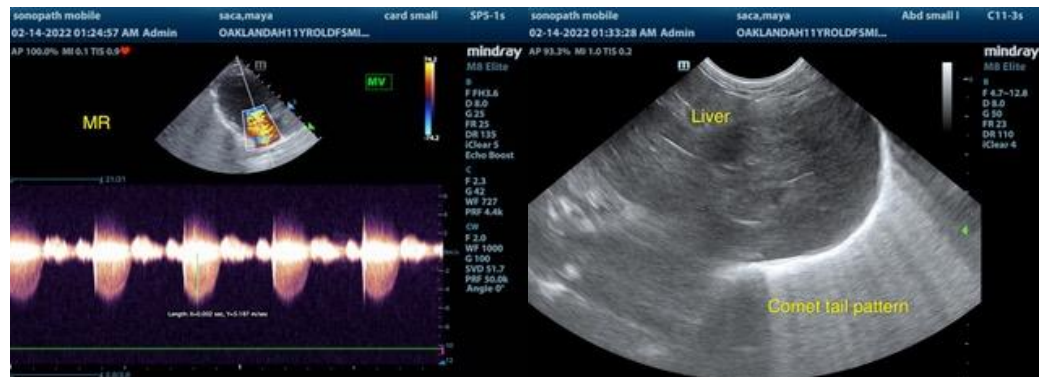
Dr. Gordon

INVOICE

13926

DATE

2/14/22



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. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com