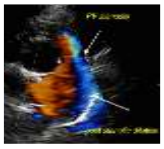
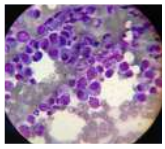
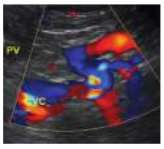
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Groot Parks

SPECIES
Canine

BREED
Great Dane

SEX
MN

AGE
3 years

WEIGHT
155 lbs.

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

IMAGING PERFORMED BY
Kim Liedberg

HOSPITAL NAME
SVS Imaging WI

REFERRING VET
Dr. Miller, Creature Comfort VS

INVOICE
13298

DATE
2/10/22

PRESENTING CLINICAL SIGNS

HX of UTI. History of on and off lethargy and chronic pain due to torn patella. Decreased appetite. Echo to rule out heart disease.
Abnormal PE/Chem/CBC/UA Results: Elevated BNP. The rest of BW WNL

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	1.4	24.5	53.1	0.6
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	155	1.6	0.8		5.4	5.5	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. Minor centralized MR present on color doppler assessment. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was mildly subnormal 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. Minor TR was present on color doppler assessment. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** 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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window. No evidence of arrhythmogenic disease was present.

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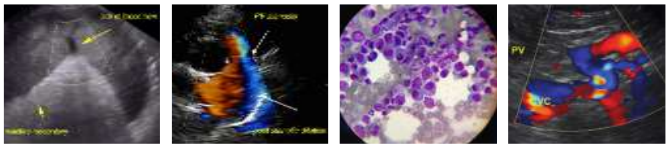

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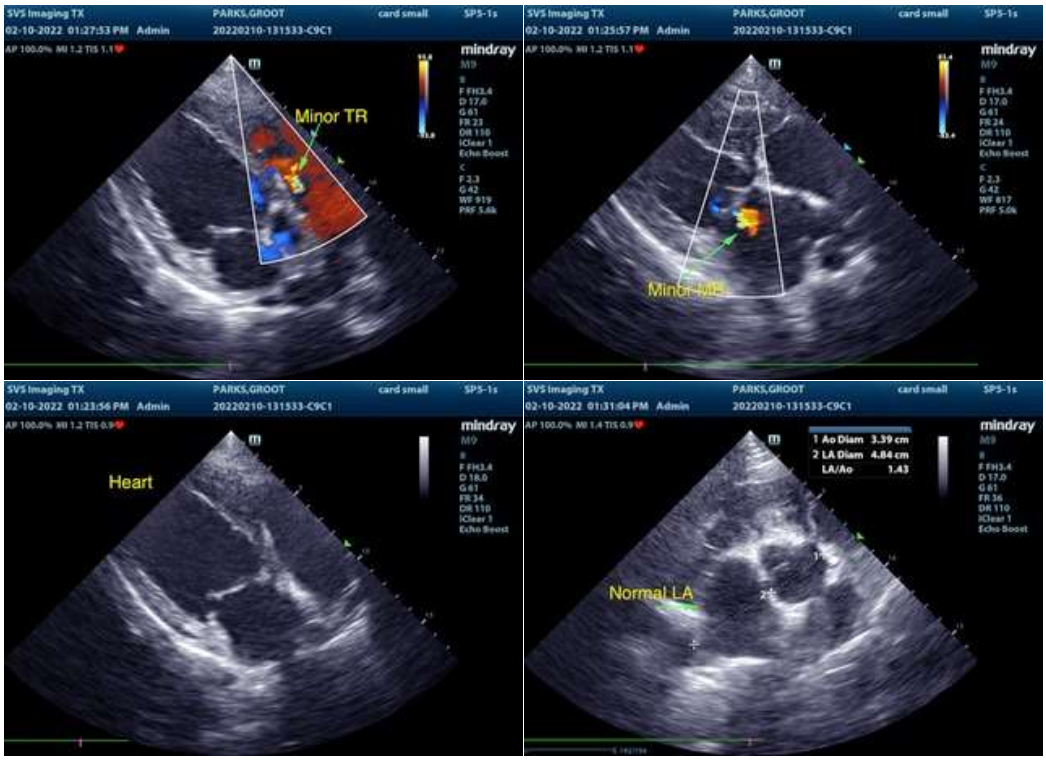
ULTRASONOGRAPHIC FINDINGS

- Overtly normal echocardiogram for breed with mild LV hypocontractility
- Normal left atrium
- Minor MR/TR

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The mild subnormal LV contractility is nonspecific. Potential considerations for this finding may include patient or breed variant with contributing factors such as systemic disease, hypothyroidism, or athletic state possible. However, given the normal lab work in this patient, and clinical history of chronic pain and torn patella, these potential contributing factors may be considered less likely. DCM criteria is not present at this time, yet the possibility of emerging cardiomyopathy cannot be definitively excluded.

Given the cardiac presentation without evidence of additional clinical issues such as significant valvular Insufficiencies or clinical pulmonary hypertension, cardiac medications are not overtly indicated at this time. However, sonographic monitoring for further prognosis and in light of the elevated BNP with initial recheck echocardiogram suggested in 6 months, sooner if progressive clinical signs potentially indicative of cardiac disease i.e., increasing lethargy or exercise intolerance, elevated resting respiration rate, etc., are noted.



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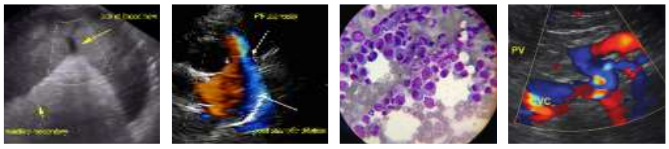

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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