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Clinical Sonography & Telecytology
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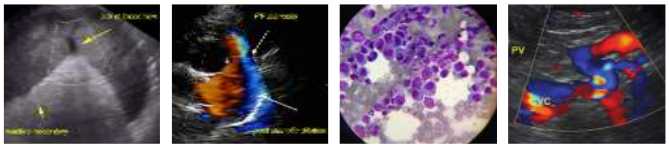

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

AI-E Sims

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

8 years

WEIGHT

14.2 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Kim

INVOICE

12195

DATE

9/8/21

PRESENTING CLINICAL SIGNS

Cardiomegaly, Prominent pulmonary vasculature o rads. Current meds: insulin, lasix, pimobendan

Abnormal PE/Chem/CBC/UA Results: Neut 2.18, mono 1.42, BUN 36.4, creat 0.7, Glucose 483, Chol 203,

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	**BODY WEIGHT** (kg)	**HR** (BPM)	**IVSd** (cm)	**LVIDd** (cm)	**LVWd** (cm)	**FS** (%)	**EF** (%)
NORMAL PARAMETER	------	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		218	0.54	1.56	0.54	49.5	84.5
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE** (Sisson)	**LA** 2D 4-chamber long axis AS to FW (Sisson) (cm)		**LVOT VEL.** (m/s)	**RVOT VEL.** (m/s)	**IVRT** (m/)
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.4	1.4	1.4		1.0	0.9	NM

Adapted from June Boon,Veterinary Echocardiography,1998
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. Mild centralized to eccentric mitral valve insufficiency was present. Mitral valve regurgitation velocity measured 4.8 m/s. The **left ventricle** presented primarily normal thicknesses and linear contour without evidence of dilation or restriction. Focal minor basilar Interventricular septum hypertrophy or bulge was present in the area of the left ventricular outflow tract. 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 and angles 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 adequate linear morphology and kinetics. Tricuspid regurgitation velocity measured <1.0 m/s. 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). Scant pericardial effusion was present without overt evidence of free pleural fluid or overt extracardiac pathology in the visible planes. No overt evidence of masses in the cranial mediastinum or pericardial regions were noted.

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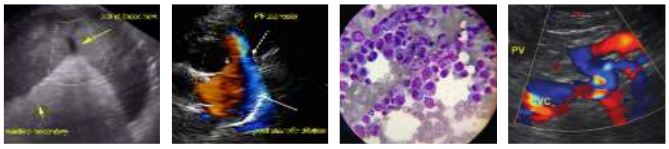

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ULTRASONOGRAPHIC FINDINGS

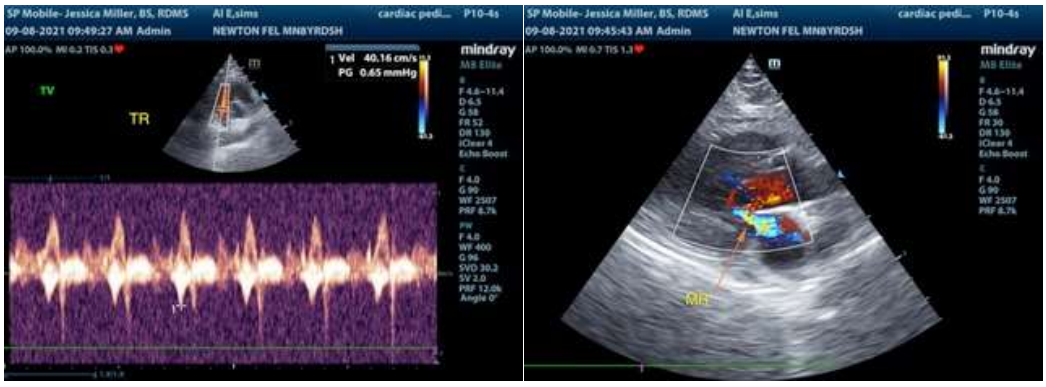
Primary Findings

- Mild basilar IVS hypertrophy / bulge
- Normal left atrium
- Mild mitral valve insufficiency
- Scant pericardial effusion

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If present, a murmur in this patient may be owing to some degree of mild fixed LVOT obstruction owing to basilar septal bulge and/or mild mitral valve Insufficiency. Regardless of subtle left ventricular changes noted, the left atrial dimension being within the normal range typically indicates low risk for complications such as CHF. A potential exception to this rule may include iatrogenic or stress-induced changes which may lead to possible spontaneous decompensation even with normal left atrial dimensions and potential scant pericardial effusion. However, an obvious cause of the scant pericardial effusion was not definitively evident. No other issues such as systolic dysfunction or overt clinical pulmonary hypertension were noted.

Given these findings, cardiac medications are not clearly indicated. However, given the presence of mild pericardial effusion, continued low-dose or potential weening of Lasix therapy with an assessment of clinical response is recommended. Recheck echocardiogram is suggested in 2-3 months, sooner if recurrent clinical signs consistent with heart disease or congestion are noted when weening off medication.



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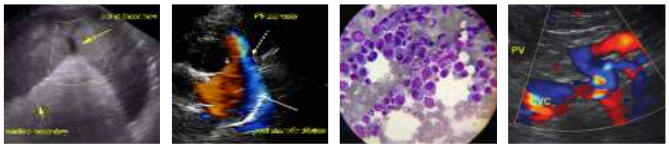

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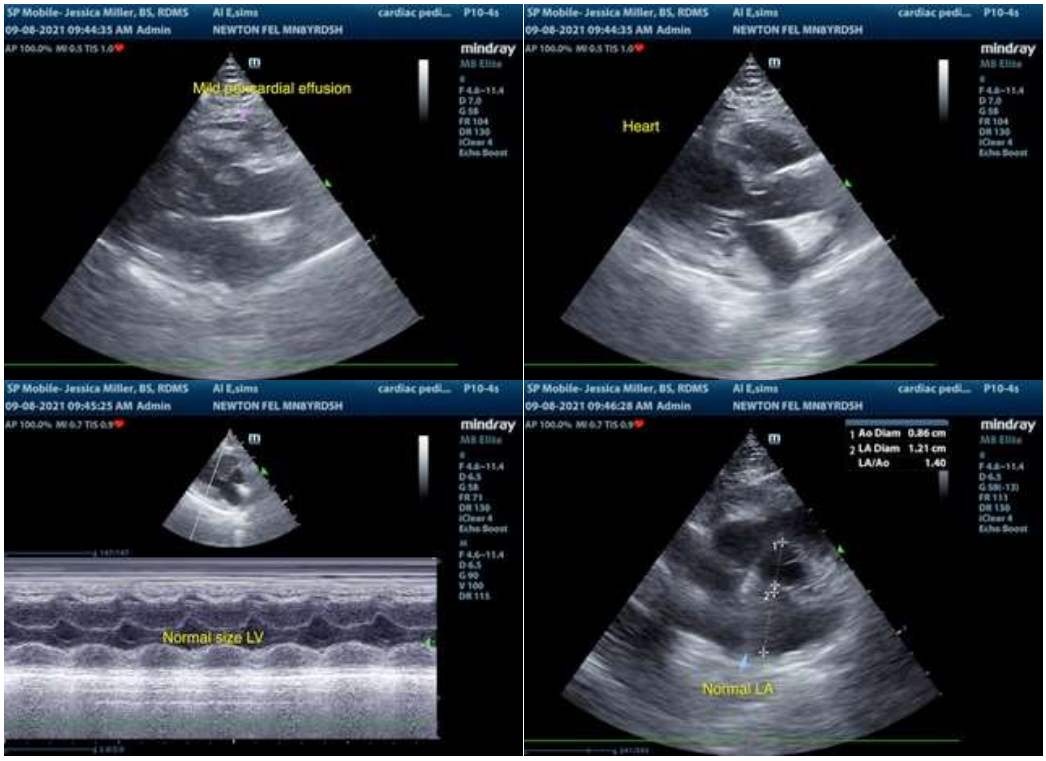

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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