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Clinical Sonography & Telecytology
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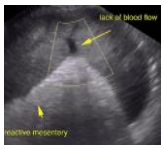
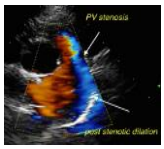
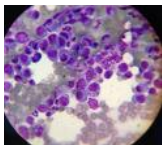
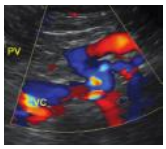

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Joey Ostrom

SPECIES
Feline

BREED
DSH

SEX
MN

AGE
9 years

WEIGHT
13.5 lb

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

IMAGING PERFORMED BY
Diane McFadden

HOSPITAL NAME
Fredon Animal Hospital

REFERRING VET
Dr. Grau

INVOICE
11154ag

DATE
07/19/2022

PRESENTING CLINICAL SIGNS

History: Emergency visit 2 days ago for increased respiratory effort. Patchy interstitial pattern on rads, slight increase in heart size. For 2 days has been on furosemide 12.5 mg x 1/2 bid

Abnormal PE/Chem/CBC/UA Results: CBC/chem nsf

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		214	0.68	1.1	0.74	44.5	79.2

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		1.87	1.5	1.4	0.2	

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 mild increased left atrial size and structure with no evidence of “smoke” or thrombi. The cranial and caudal mitral valve leaflets appeared mildly thickened with some mild systolic anterior motion (SAM) of the mitral valve present. Secondary mild eccentric insufficiency was noted on Doppler. The left ventricle presented excessive free wall and septal thicknesses with hypertrophic thicknesses compared to normal for this species. The myocardium presented essentially normal echogenicity without immediate signs of fibrotic or ischemic disease. Mildly prominent papillary muscles were present. Contractility of the ventricular walls was considered excessive for this patient evidenced by the elevated fractional shortening measurement. The left ventricular outflow tract demonstrated turbulent to dynamic systolic laminar flow. Subjective assessment of the right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated linear morphology. The right ventricle was of normal size with normal chordae structure, myocardial echogenicity and thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter. Minor volume pericardial free fluid was noted without evidence of free pleural fluid. No echographically detectable evidence of infiltrative disease was visible. The mediastinum was free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

- Hypertrophic obstructive cardiomyopathy
- Mildly enlarged LA
- Mild eccentric MR
- Minor volume pericardial effusion

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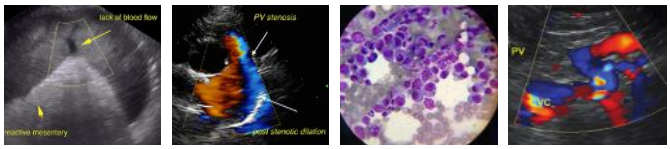

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This study is most consistent with hypertrophic obstructive cardiomyopathy which indicates some degree of LV thickening (mild to moderate) in this case with suspect mild dynamic LVOT obstruction (SAM). The mild increased LA dimension indicates that the risk of complication is elevated yet the overall size of the left atrium was not overtly consistent with CHF. This potential cannot be definitively excluded while possible exceptions to this may be iatrogenic or stress induced changes which can lead to decompensation even with normal to mildly increased LA dimensions.

However, this patient potentially has responded positively to Lasix alone making primary respiratory causes of dyspnea less likely. Continued Lasix at lowest effective dose with monitoring of renal parameters and continued clinical response would be reasonable. Careful reassessment for any complicating factors may be considered if symptoms return/persist. No additional cardiac therapy is overtly indicated. Plavix is typically suggested in cases of CHF and LA enlargement however without significant LA enlargement the risk of clot formation remains relatively low. Atenolol is not clearly indicated without overt tachycardia, significant obstruction or significant LA dilation.

Assessment of systemic BP and T4 levels are recommended if not recently done to rule out complicating factors. Recheck echocardiogram in 2-3 months to reassess LA dimension is recommended sooner if persistent/progressive clinical signs.

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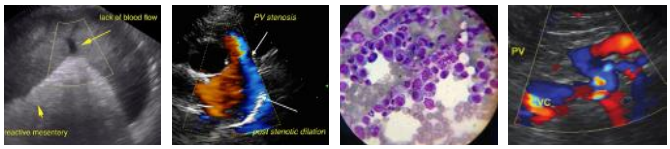

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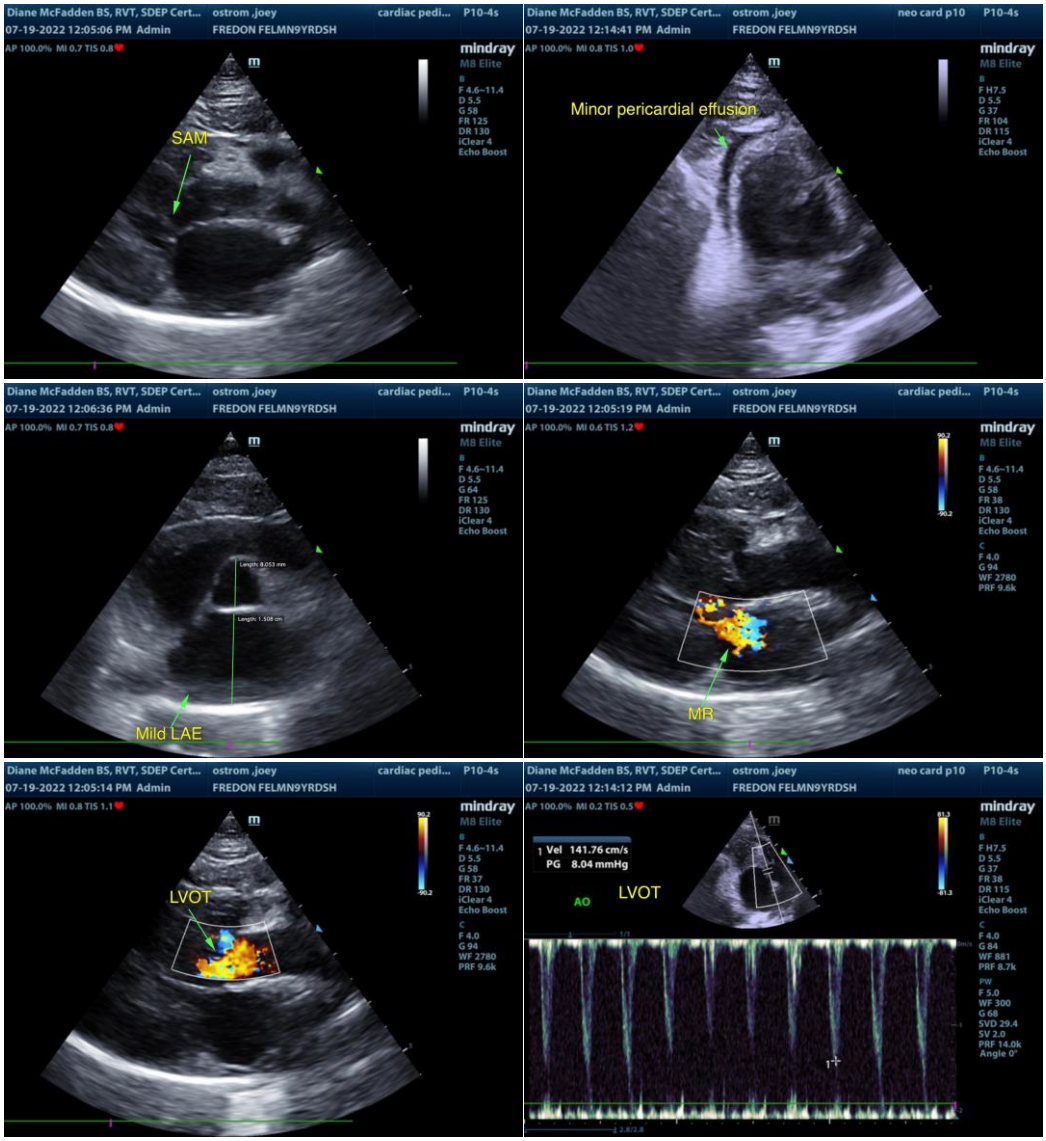

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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