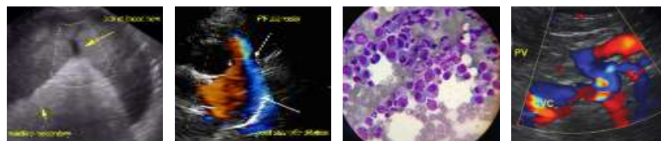
SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Rocco Robinson

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

2011

WEIGHT

12.74 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Amanda Crook - SDEP Certified Clinical Sonographer

HOSPITAL NAME

Rivers Edge PMC

REFERRING VET

Dr. David Gray

INVOICE

12881

DATE

12/27/21

PRESENTING CLINICAL SIGNS

-P presented for acute, mild ADR with some increased RR. Heart murmur auscultated.
Abnormal PE/Chem/CBC/UA Results: Labwork WNL - see attached Radiographs - enlarged heart

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		NM	0.7	1.25	0.67	54.4	89.2
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	1.2	1.4	1.25		4.3	2.0	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

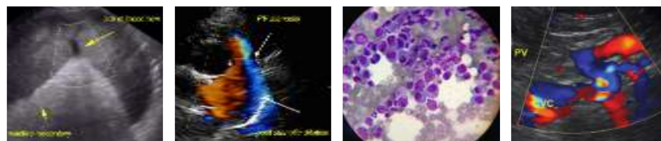
Cardiac Presentation

The left ventricular wall was moderate to significantly hypertrophied with regions of irregularity most prominent in the area of the basilar IVS with potential for indistinct nodular change, measuring approximately 1.4 cm x 1.4 cm. Mild diffuse hyperechoic endocardium suggestive of fibrosis and ventricular remodeling was present. Papillary muscle hypertrophy with regions of remodeling was present in the left ventricle lumen. The right ventricle exhibited normal size with a mildly prominent free wall as well. Normal left atrium dimension was noted without evidence of spontaneous contrast. Normal right atrium dimension without evidence of spontaneous contrast was present. Borderline elevated RVOT velocity with minor pulmonary valve insufficiency was present. Pulmonic valve Insufficiency measured (1.0 m/s). Systolic anterior motion (SAM) with the mitral valve was present with an elevated to turbulent LVOT velocity seen on Color Flow. Moderate eccentric mitral valve regurgitation secondary to SAM was present. Mitral valve regurgitation velocity measured (5.4 m/s). Trace tricuspid valve insufficiency without evidence of additional valvular insufficiency was noted. Tricuspid valve regurgitation velocity measured (2.2 m/s). Mild to moderate pericardial effusion with concurrent scant to mild pleural effusion appreciated. Overt evidence of pericardial tumors was not definitively evident.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hypertrophic obstructive cardiomyopathy with moderate to marked IVS / LV free wall hypertrophy, most notable in the area of basilar IVS



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- Normal subjective left atrium
- Mild to moderate pericardial effusion with concurrent scant to mild pleural effusion

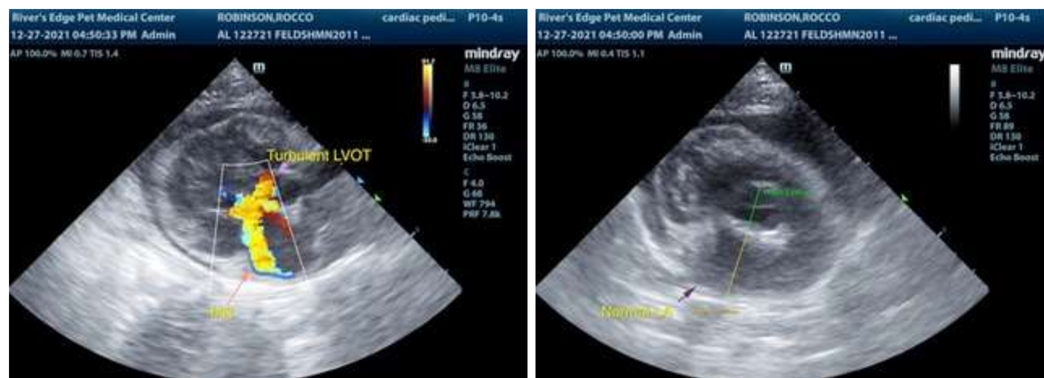
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

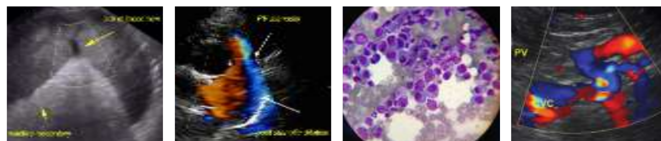
This study is most consistent with HOCM, although potential unclassified or burn-out HCM may present in a similar sonographic manner. Associated with the hypertrophy is SAM, which along with fixed obstruction secondary to basilar IVS hypertrophy is creating a concurrent dynamic obstruction to flow In the left ventricular outflow tract and secondary mitral regurgitation.

The lack of significant left atrium or generalized left or right heart chamber enlargement was not overtly consistent with cardiogenic pericardial and scant to mild pleural effusion. Potential exceptions to this may include an iatrogenic or stress-induced event which may potentially result in pericardial / pleural effusion with normal left atrium size. However, the possibility of noncardiogenic pericardial and pleural effusion i.e., neoplasia, inflammation, etc. may be possible.

From the cardiac standpoint, consideration could be given to Atenolol 6.25 mg BID and low-dose diuretic therapy with serial sonographic monitoring of the heart for evidence of increasing pericardial / pleural effusion. Given the potential for cardiogenic effusion, there is some risk associated with Atenolol use as its negative inotropic properties could potentially exasperate emerging cardiac failure. Screening blood pressure and T4 levels is recommended to assess for complicating factors. Consultation with a veterinary cardiologist may also be considered in this potentially complicated case.

Overall, a guarded prognosis is warranted. Recheck echocardiogram is suggested in 2-3 months, primarily to assess for decreasing cardiac function or persistent / progressive pericardial / pleural effusion.





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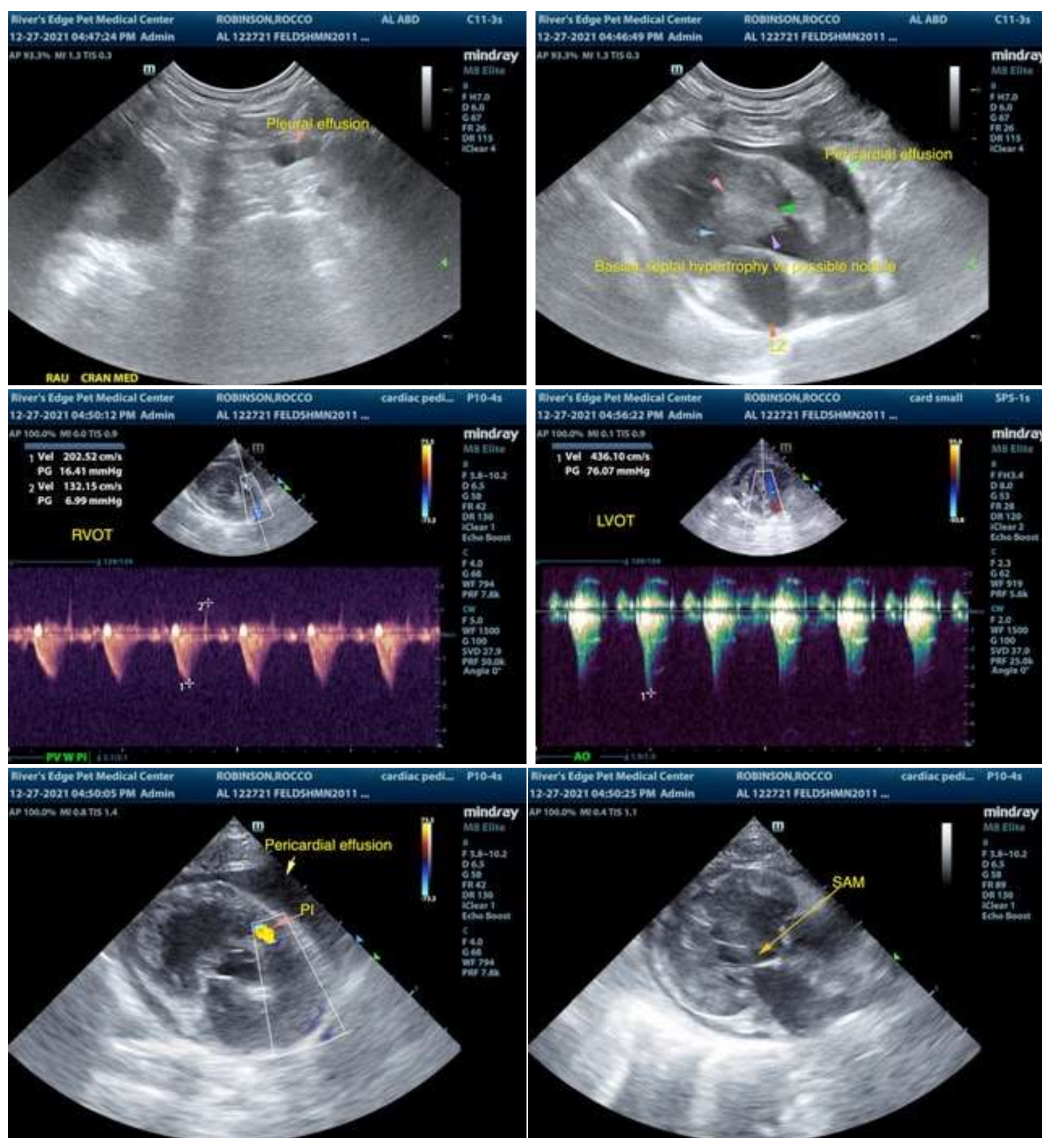

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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