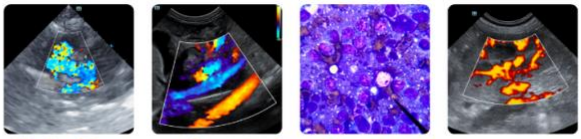

PATIENT

Cat 89256A

SPECIES

Feline

BREED

DSH

SEX

Intact Female

AGE

10 Weeks

WEIGHT

0.78 Pounds

INTERPRETED BY

Sara Brethel DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Andrea Nicastro, DVM, DACVIM

HOSPITAL NAME

Charleston AS

REFERRING VET

Dr. Lucy Fuller

INVOICE

35242

DATE

1/5/26

PRESENTING CLINICAL SIGNS

History: 4/6 murmur - PMI – sternum.

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	0.35	NM	0.33	1.15	0.3	56.52	--
FELINE CARDIAC PARAMETERS	**LA/AO** (M-mode)	**LA/AO HEART BASE** (Sisson)	**LAD** LA MAX 4 Chamber		**LVOT VEL.** (m/s)	**RVOT VEL.** (m/s)	**IVRT** (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.27	1.39	--		~0.8	~1.5	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							

LVIDs: 0.5, VSD VMAX velocities: Underestimated.

Cardiac Presentation

The mitral valve leaflets are normal and there is no mitral regurgitation. The left atrial size is normal. There is no evidence of systolic anterior motion of the mitral valve and no evidence of a left ventricular outflow tract obstruction. Left ventricular systolic and diastolic function is within normal limits. There is no evidence of left ventricular concentric hypertrophy. Subjectively, the right atrium appears at the upper limits of normal to mildly increased without evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on the images provided. The right ventricle appears normal in structure and function subjectively. The aortic and pulmonic valves have normal morphology and the corresponding outflow velocities are within normal limits. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses. There is echo dropout in the perimembranous interventricular septum region, and doppler velocities suggest that there is a left to right shunt. Color flow doesn't confirm these findings.

ULTRASONOGRAPHIC FINDINGS

- Possible ventricular septal defect, perimembranous left to right

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the patient's size, there are inherent limitations to transthoracic echocardiography, however, with the doppler profiles, the reported murmur, and the region of echo dropout, I'm concerned this

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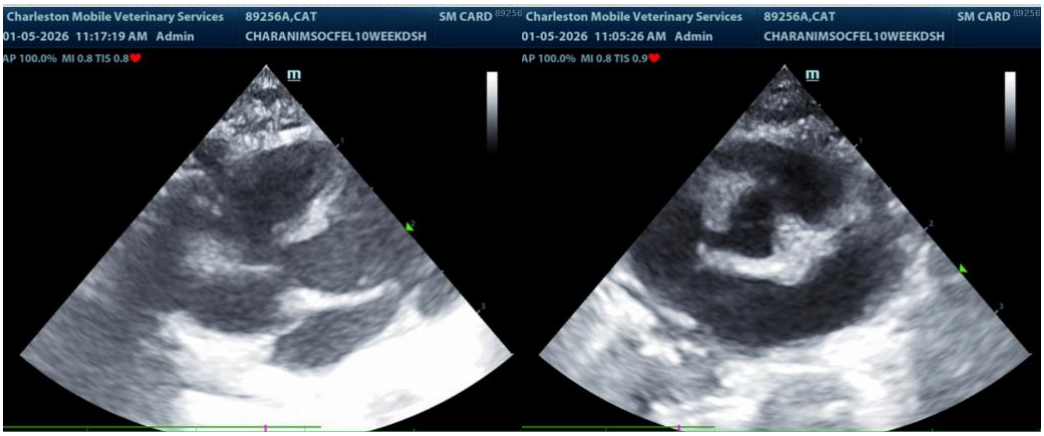
patient has a ventricular septal defect. The significance and the size cannot be determined based upon the images provided. Sometimes VSDs can be progressive in these patients and lead to left sided overloading, however, other times they are incidental findings, and patients go on to lead normal lifespans. Considerations include following up with a veterinary cardiologist for further investigation of the significance. Alternatively, rechecking an echo in about 2-4 months, when the patient is a little bit bigger, to help identify the significance and severity.

If the patient needs to be spayed, as long as the patient is asymptomatic, she can undergo anesthesia. Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.



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.

Sara Brethel DVM, DACVIM (Cardiology)

info@SonoPath.com