



PATIENT

Little Foot Kline

PRESENTING CLINICAL SIGNS

Rx flagyl for giardia and crypto. Noted 2-3/6 heart murmur during pre surgical exam for neuter. Check for septal defect.

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

DSH

SEX

Male

AGE

7 Months

WEIGHT

9.1 Pounds

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		213	0.52	1.70	0.52	56.3	90.9
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	--	1.5	1.4	1.2	1.1	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. 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 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 or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Turbulent systolic blood flow noted within the right ventricular lumen in the area of the membranous interventricular septum was present. **Pulmonic** 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 or extra cardiac pathology in the visible planes. The cranial **mediastinum** and **pericardial** regions were free of masses in the visible window.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr. Terry Johnson

INVOICE

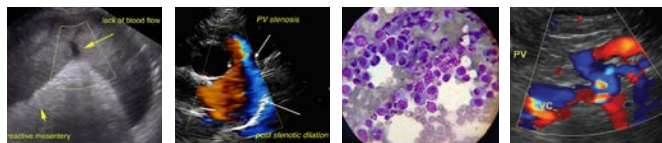
25707

DATE

9/21/21

ULTRASONOGRAPHIC FINDINGS

- Probable small membranous to perimembranous VSD
- Overall normal cardiac structure and function



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the lack of evidence of valvular insufficiency and in light of presence of turbulent blood flow during systole within the right ventricle, a small membranous or perimembranous VSD is probable. The hemodynamic effects of the probable VSD are considered insignificant at this time without evidence of left or right heart chamber enlargement or volume overload. The lack of left or right heart chamber enlargement indicates that the risk of future complication is low at this time, yet monitoring and serial echocardiography is required for further assessment. Given the overall normal cardiac structure and function, no overt anesthetic contraindications. However, judicious fluid use is recommended during anesthesia. The following anesthetic protocol may be considered. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists. Recheck echocardiogram suggested in 6 months, sooner if murmur intensity increases or if clinical signs suggestive of heart disease develop. Alternatively, referral to local cardiologist for further assessment may be considered.



INTERPRETED BY

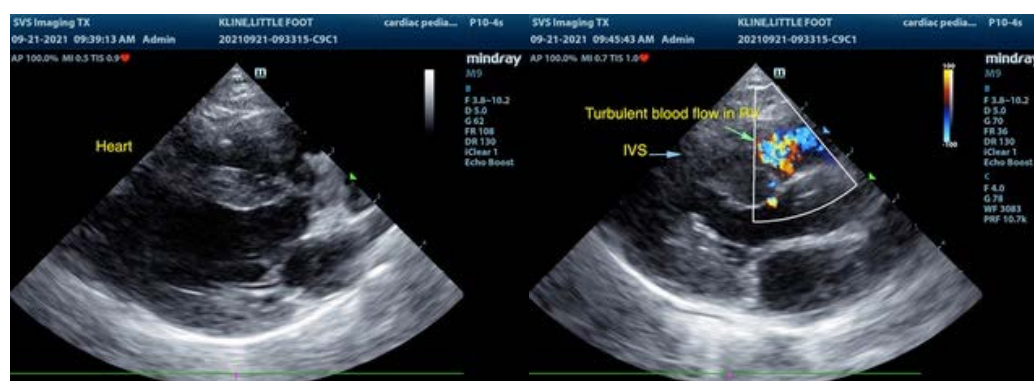
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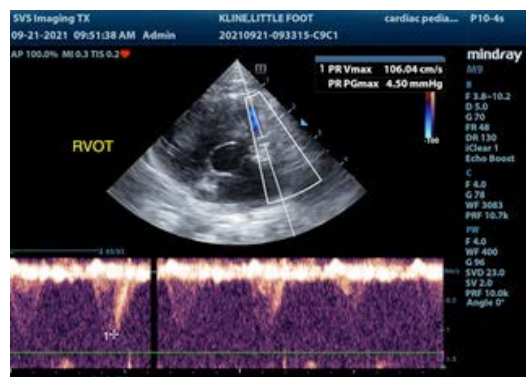
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SPECIES

Feline

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

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