



**PATIENT PRESENTING CLINICAL SIGNS**

Toto Huang Heart murmur grade 4 out of 6 PANTING  
 Abnormal PE/Chem/CBC/UA Results: Blood work-elevated ALT Radiographs -pleural effusion and enlarged heart Fluid cytology-pending Thoracocentesis was done, removed whitish opaque fluids (CHYLE) were mainly left side, 500 mL

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

BREED	FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
DSH	NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
SEX	PATIENT	--	NM	0.58	1.1	0.55	33	66
Neutered Male	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/)
AGE	NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
1	PATIENT	--	1.1	1.0		NM	0.94	NM
WEIGHT	Adapted from June Boon, Veterinary Echocardiography, 1998							
11	Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Sharkaway

**HOSPITAL NAME**

Kew Gardens AH

**REFERRING VET**

Dr. Sharkaway

**INVOICE**

21959

**DATE**

4/12/22

**Cardiac Presentation**

Severe right atrial enlargement was present, containing anechoic content, measuring 2.3 cm in diameter. Mildly prominent right ventricle was noted with thickened right ventricle free wall, possibly suggestive of right ventricle concentric hypertrophy. Normal to mildly subnormal left atrium size with concurrent normal to mildly subnormal left ventricle volume was noted. Mildly nonuniform generalized myocardial echogenicity was noted. Adequate yet mildly depressed LV function was observed. Overtly normal appearance to the mitral valve with no overt MR on doppler. Overtly normal appearance to the tricuspid valve. Overtly normal pulmonic and aortic valves were present. Subjective laminar RV outflow was noted on color doppler with normal measured RVOT velocity. Moderate volume pleural effusion was present. No overt cardiac tumors or arrhythmia. Brief sonographic assessment of the liver revealed subjective evidence of emerging to possible mild yet compensated hepatic congestive criteria. No overt evidence of cranial abdominal ascites.

**ULTRASONOGRAPHIC FINDINGS**

- Severe right atrium enlargement
- Thickened to prominent right ventricle
- Normal to mild subnormal LA/LV volume
- Pleural effusion

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**



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Significant right heart cardiomyopathy, as a suspected cause of the reported chylous effusion, is probable. A definitive diagnosis was unclear in this study; however, significant right heart cardiomyopathy is consistent with congestive right heart failure, as the most likely cause of the pleural effusion, and suspect emerging hepatic congestion. The possibility of multifactorial component to the pleural, potentially chylous, effusion, cannot be definitively excluded. Referral to a local cardiologist, as soon as possible, for further assessment, definitive diagnosis, and prognosis, is strongly suggested, if possible.

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

1

**WEIGHT**

11

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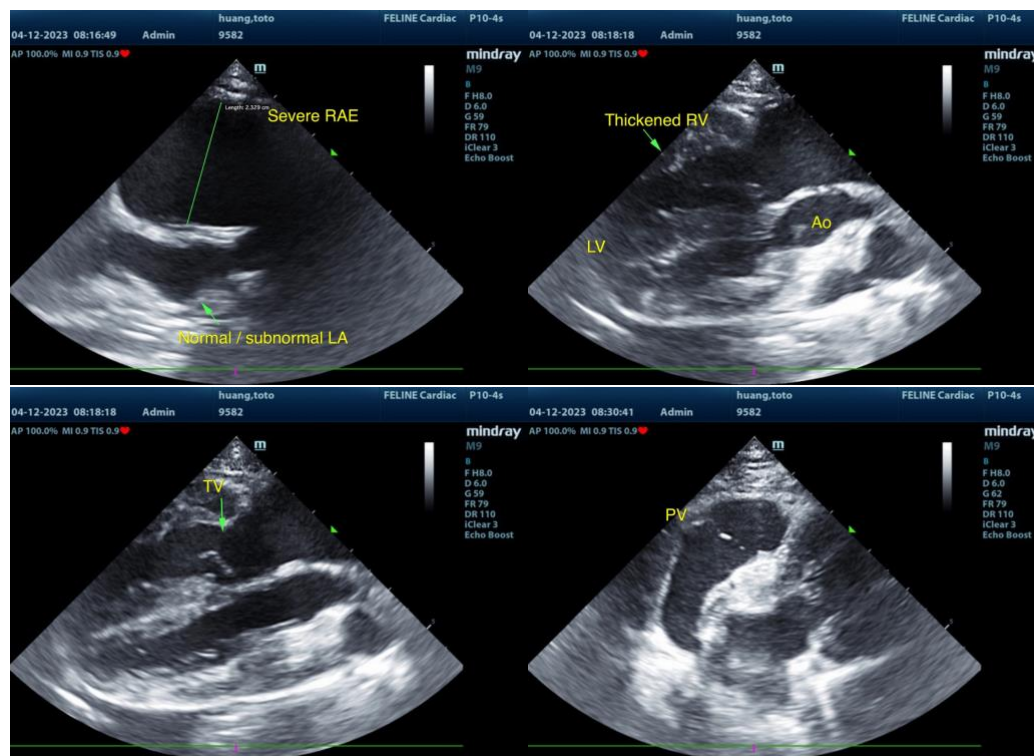
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**PATIENT**

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**SPECIES**

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**BREED**

DSH

**SEX**

Neutered Male

**AGE**

1

**WEIGHT**

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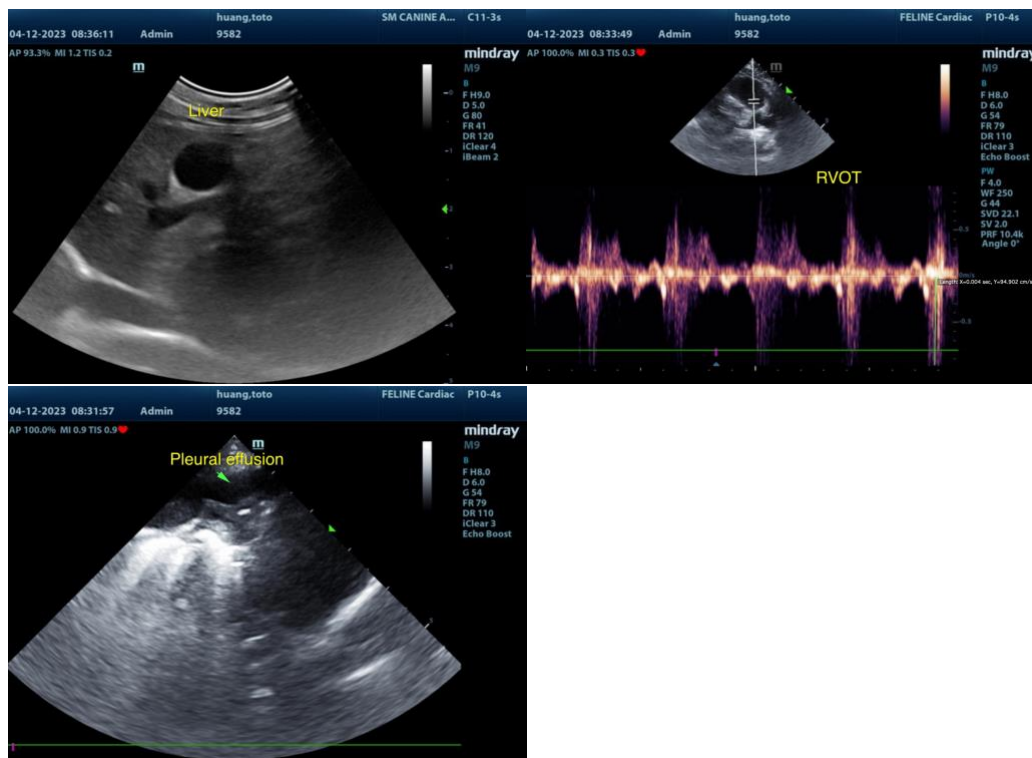
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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