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Clinical Sonography & Telecytology
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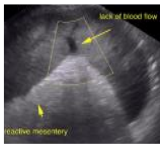
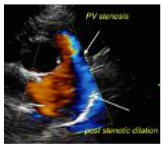
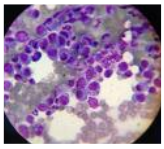
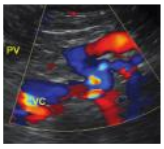





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Finley Young

SPECIES

Canine

BREED

Gret

SEX

Neutered Male

AGE

9

WEIGHT

72

INTERPRETED BY

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

IMAGING PERFORMED BY

Hunt

HOSPITAL NAME

Bayshore VH

REFERRING VET

Dr. Hunt

INVOICE

22108

DATE

4/20/23

PRESENTING CLINICAL SIGNS

History: Acute collapse. Came in volume depleted, no fever
Abnormal PE/Chem/CBC/UA Results: All normal inc platelets, ana and erlich neg. R/O idiopathic, heart-based tumor

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

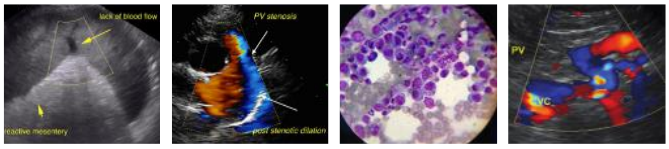
CANINE CARDIAC PARAMETERS	**MR VMAX** (m/s)	**TR VMAX** (m/s)	**LA/AO** (Boon method)	**LA/AO** (Heart Base; Swe)	**FS** (%)	**EF** (%)	**EPSS** (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	--	--	NM	1.15	37	68	0.22
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (kg)	**LA** 2D short axis Base view (cm)	**LVIDd** Avg; 2D and m-mode short axis (cm)	**LVIDs** Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	NM	NM	NM	--	3.3	3.5	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. No overt MR on doppler. The **left ventricle** presented 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 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 was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). Mild volume pericardial effusion was noted, exhibiting potential subjective echogenic fluid changes. The possibility of minor volume, indistinct, concurrent pleural effusion cannot be excluded. There is a possible ill-defined nonhomogenous lesion in the area of the heart base, measuring approximately 4.5 cm in diameter. Unclassified arrythmia was intermittently noted.

ULTRASONOGRAPHIC FINDINGS

- Overall normal cardiac structure with normal LV function



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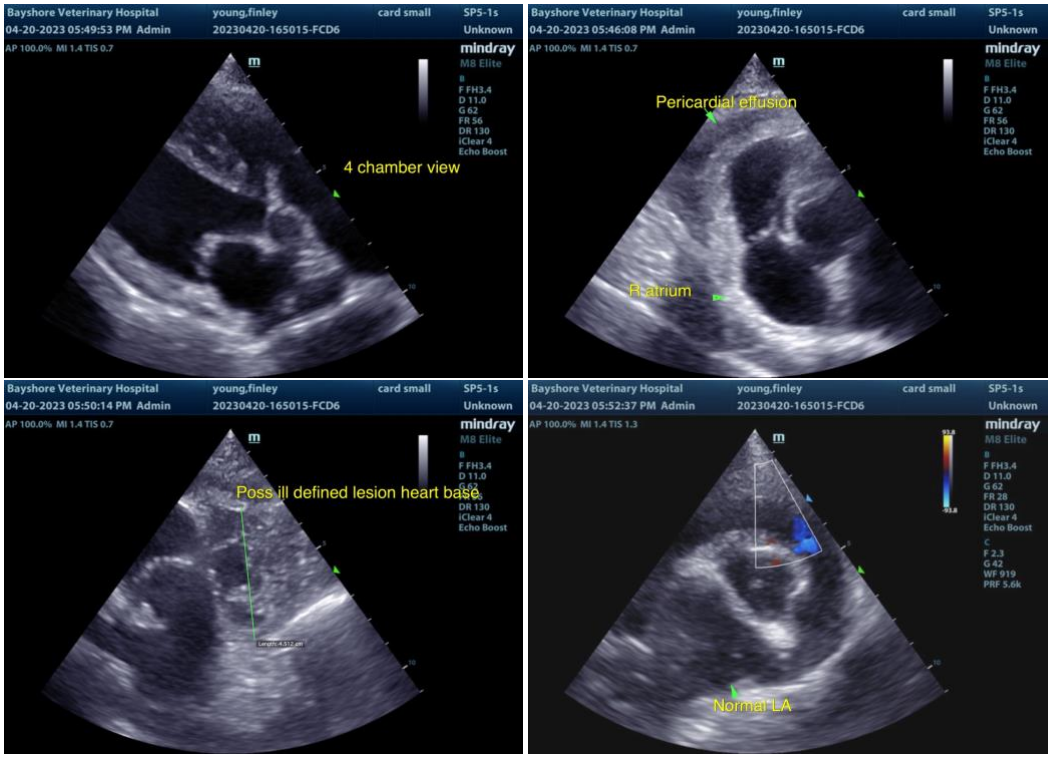
- Normal left atrium
- Mild volume pericardial effusion- subjective mild echogenic effusion changes
- Possible ill-defined heart base lesion
- Intermittent arrythmia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of left or right heart chamber enlargement indicates that CHF is ruled out as a cause of the pericardial effusion. Given the subjective mild echogenic pericardial effusion changes, the possibility of an ill-defined lesion at the heart base cannot be confirmed not excluded. Other potential possibilities for pericardial effusion may include infectious/inflammatory disease, trauma or idiopathic. An emerging extracardiac tumor bleed could be possible, although. Not definitive. Diagnostic pericardiocentesis would be ideal, however, given the mild volume pericardial effusion at this time, this option may be precluded, and other noninvasive options should initially be explored. Advanced cardiac imaging, such as referral or possible CT may be considered. ECG is recommended if available for further classification of the intermittent arrythmia. Likewise, full abdominal ultrasound is recommended to assess for intraabdominal pathology as a potential cause of pericardial disease/metastasis.



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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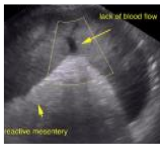
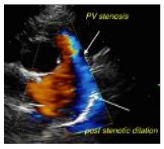
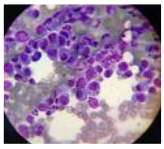
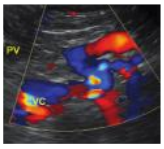

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