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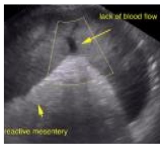
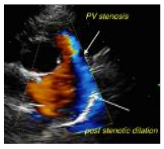
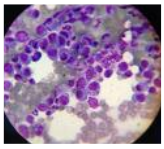
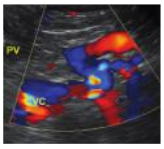
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Silas Armstrong

SPECIES

Canine

BREED

Labrador Retriever

SEX

Neutered Male

AGE

9 Years

WEIGHT

100 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Karen Ebersole, DVM, DABVP (Canine/Feline Practice)

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Bennett

INVOICE

21950

DATE

4/13/23

PRESENTING CLINICAL SIGNS

History: Presented 4/11/23 *acutely* lame RF, inappetent and lethargic. Treated with Doxycycline, but advised to recheck if not improved. Brighter yesterday but vomiting from Doxycycline. Found pleural effusion on Rads yesterday. Modest to moderate response to repeated furosemide injections (3-4 mg/kg).
Abnormal PE/Chem/CBC/UA Results: PE: Tachypneic, harsh lung sounds, heart muffled slightly. MM bright pink. CBC/Chem: WNL, TP high normal, Hct normal RADS (post Lasix rads attached): pleural effusion. Abdomen and RF rads: WNL. Anaplasma + (new) Chest tap: frank blood. Did FNA of consolidated lung/mass in R cranial thorax.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & LIMITED THORAX

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	1.3	39	74	0.3
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	1.8	1.4	--	3.7	3.9	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 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. 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).

No overt evidence of pericardial free fluid. Subjective moderate volume free pleural fluid was present with generalized hyperechoic intrathoracic tissue within the cranial lung and irregular hypoechoic to nonhomogenous mass lesion was present (approximately 6-7 cm in diameter).

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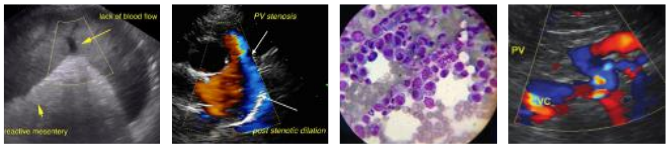

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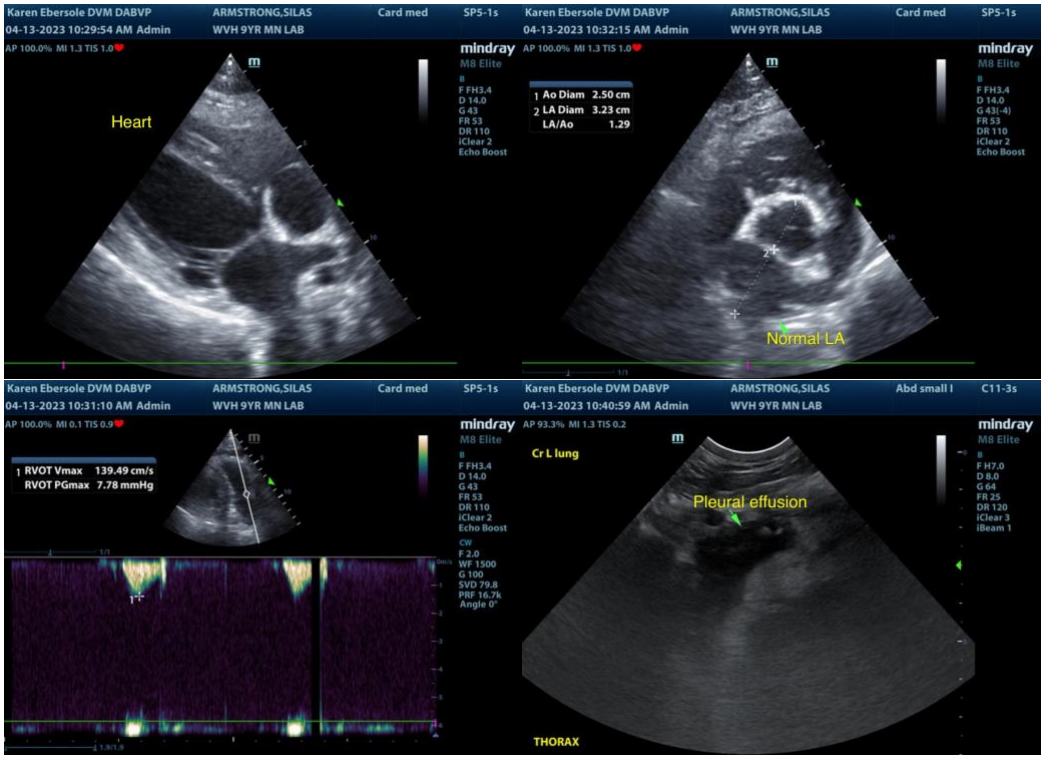
ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram
- Moderate volume pleural effusion with ill-defined cranial pulmonary mass lesion

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The normal cardiac presentation and function indicates that the pleural effusion in this case is noncardiogenic. Primary intrathoracic/pulmonary pathology, which may include inflammatory/infectious etiologies, regional cranial pulmonary consolidation, abscess/necrosis, neoplasia, or other are all potentials. Correlation with pleural effusion analysis, cytospin cytology +/- culture and sensitivity, if evidence of inflammatory cells, as well as pending pulmonary cytology. Thoracic CT may be required for definitive diagnosis. If clinically indicated, abdominal ultrasound may be considered to assess for evidence of primary intrabdominal pathology as a potential contributing factor or source of possible metastasis. Extremely guarded prognosis is indicated.



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