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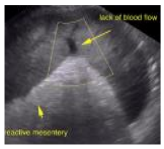
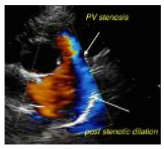
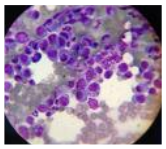
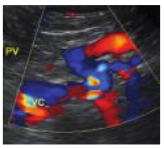

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1-800-838-4268 info@sonopath.com

**PATIENT**

Maggie Ham

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

97 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Karen Ebersole, DVM, DABVP (Canine/Feline)

**HOSPITAL NAME**

Scanvet

**REFERRING VET**

Dr. Neat

**INVOICE**

21027

**DATE**

2/6/23

## PRESENTING CLINICAL SIGNS

History: Not eating or drinking, lethargic, tachypneic.

Abnormal PE/Chem/CBC/UA Results: RADS: moderate to large pleural effusion, cannot visualize the heart clearly. No BW yet. US guided thoracocentesis: blood, running Hct on it.

*Rapid echocardiogram was performed owing to the precarious nature of the presentation.

## 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 | 1.3 | 30 | -- | NM |
| **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** | -- | -- | -- | -- | -- | 4.2 | -- |

### *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).

Areas of tissue consolidation were noted, as well as a large amount of pleural effusion (this is not cardiogenic). Pleural strands were noted with heterogenous irregular tissue with mild deviation of curvilinear patterns. The caudal thorax also revealed lung consolidation. A lung mass was noted in the caudal thorax as well.

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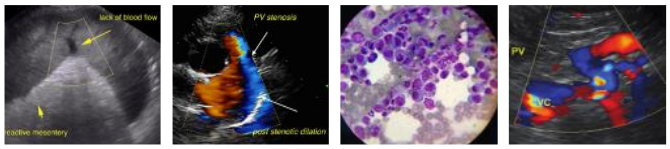

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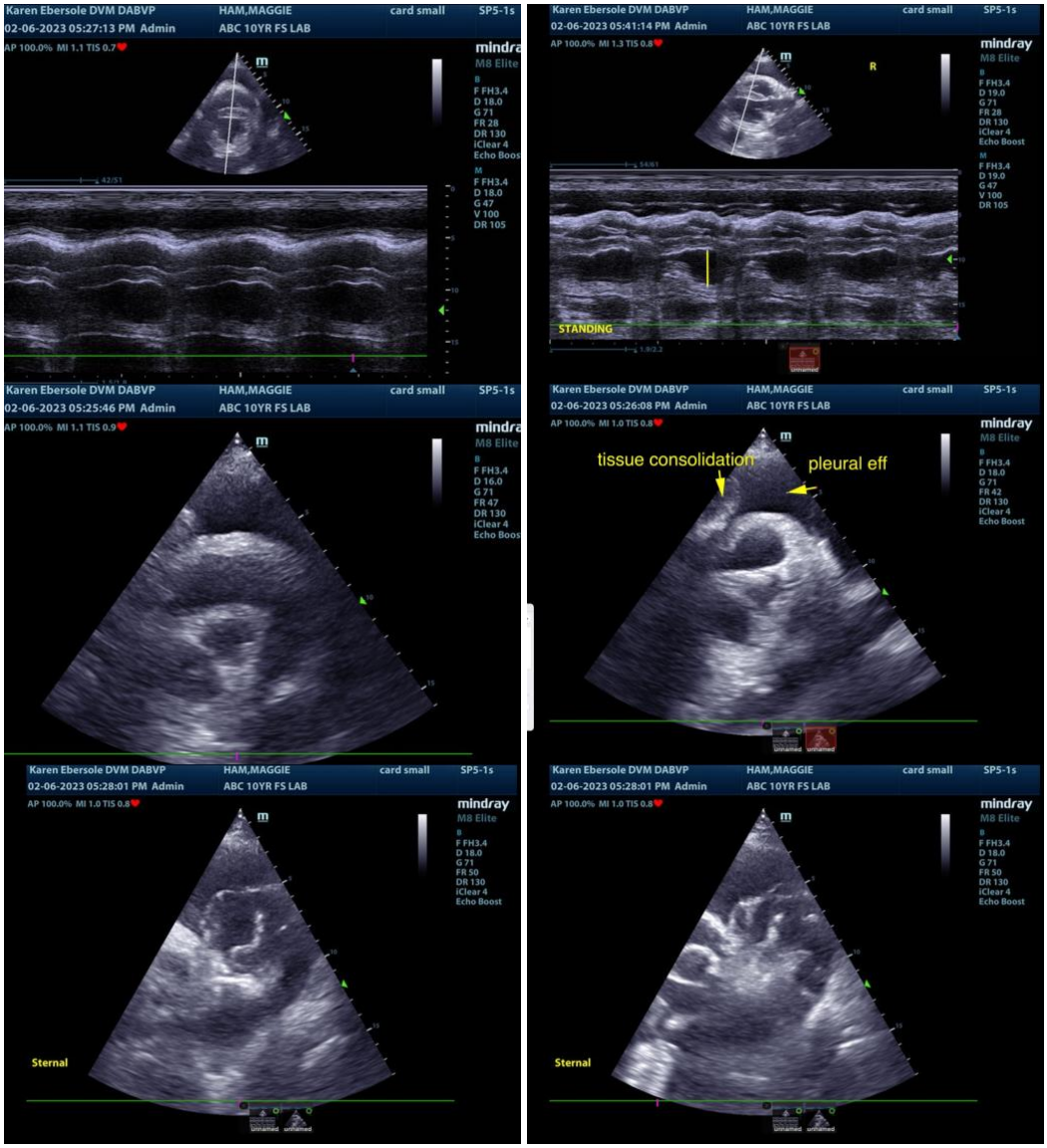
## ULTRASONOGRAPHIC FINDINGS

- Lung mass in the caudal thorax and lung consolidation
- Noncardiogenic pleural effusion

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend cytospin of the hemorrhagic pleurocentesis sample for a definitive diagnosis, however, prognosis is poor. Chest CT would be ideal in this case. The tissue noted may be difficult to aspirate given the position, however, pleurocentesis and chest drainage may allow for decreased distance from the lung mass/lung consolidations to the thoracic body wall (this may allow for FNA).



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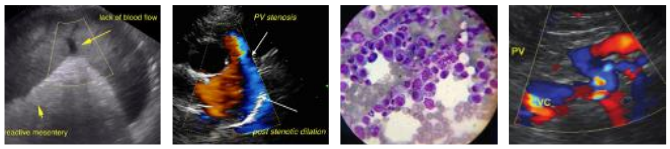

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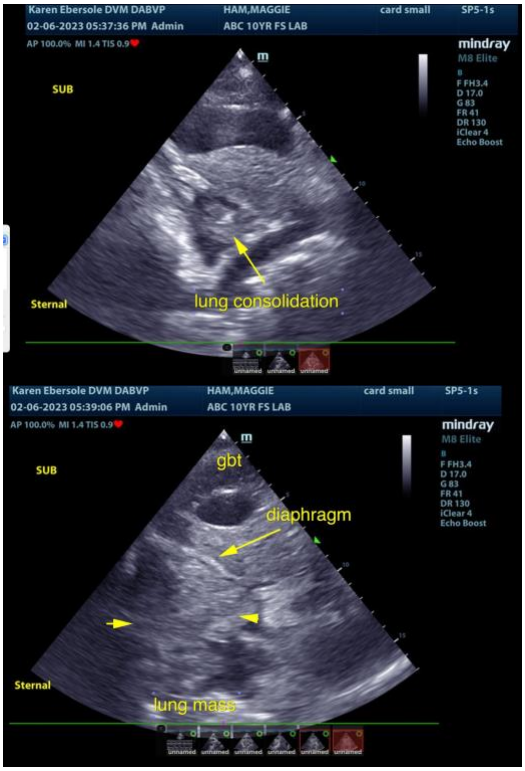


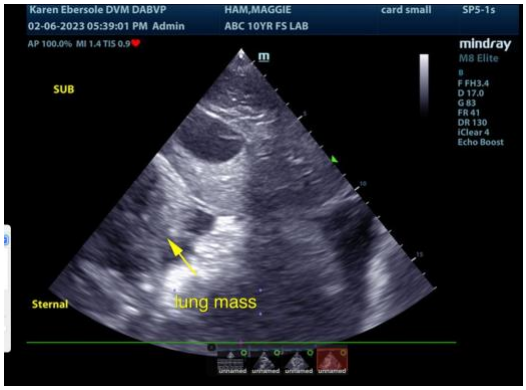





**The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com