
**PATIENT PRESENTING CLINICAL SIGNS**
**PATIENT**  
 Cartman Hemlow

**PRESENTING CLINICAL SIGNS**  
 History: Sounds congested, was breathing some brownish tinged fluid from almost closed up nares during scan. Seems to be worsening. Has been ongoing for a while. Wheezy lung sounds. No heart murmur. Overweight.

**SPECIES**

Canine

**Abnormal PE/Chem/CBC/UA Results:** Rads - Cardiac silhouette seems normal. Pulmonary vessels normal with mild bronchial pattern. Mild narrowing of mainstem bronchi. Small soft tissue opaque band noted in the included dorsal aspect of the cervical vertebrae. Pleural space unremarkable. Concerns for mainstem bronchial collapse and cannot rule out upper airway inflammatory or neoplastic process.

**BREED**

Pug

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**
**SEX**

Neutered male

Significant respiratory interference was noted in this patient. The visible cardiac view in this patient revealed no volume overload. The contractility appeared adequate. All four chambers revealed normal volume with no evidence of disease. The contractility was adequate. The pulmonary and aortic outflows were unremarkable. The auricle and right atrium were within normal limits. The acoustic window was minimal. A large amount of thoracic fat was noted.

**AGE**

14 years

**WEIGHT**

13.25 kg

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT			1.0	1.0	35		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	BELOW	BELOW	BELOW	BELOW
PATIENT	80	1.1	0.65	13.25			

**INTERPRETED BY**

 Eric Lindquist, DMV  
 DABVP, Cert. IVUSS

**IMAGING  
 PERFORMED BY**

Crystal Hill, RVT

**HOSPITAL NAME**

 Beatties East Hamilton  
 PH

**REFERRING VET**

Dr. MacDonald

**ULTRASONOGRAPHIC FINDINGS**

Volume contracted heart, no evidence of significant pathology imaged with minimal window.

**INVOICE**

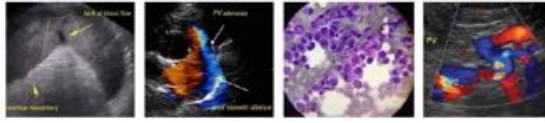
42681

**DATE**

2/9/23

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no evidence of extracardiac pathology. There was a large amount of thoracic fat and respiratory interference. No cardiac medications are recommended. There was no evidence of neoplasia. Assessment for cause of volume contraction is recommended as subjectively the left atrium appeared to be subnormal in size. Respiratory endoscopy may be the best option in this patient. I recommend to assess for obstructive respiratory disease. Weight loss protocol is recommended. There was no evidence of secondary pulmonary hypertension.



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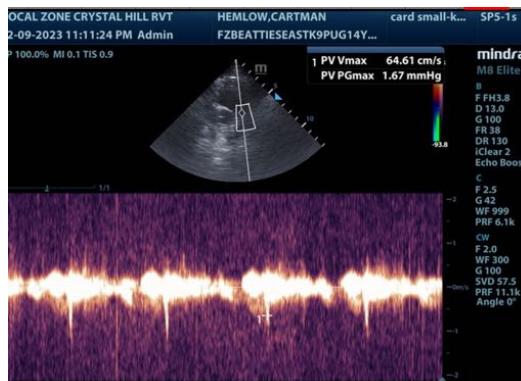
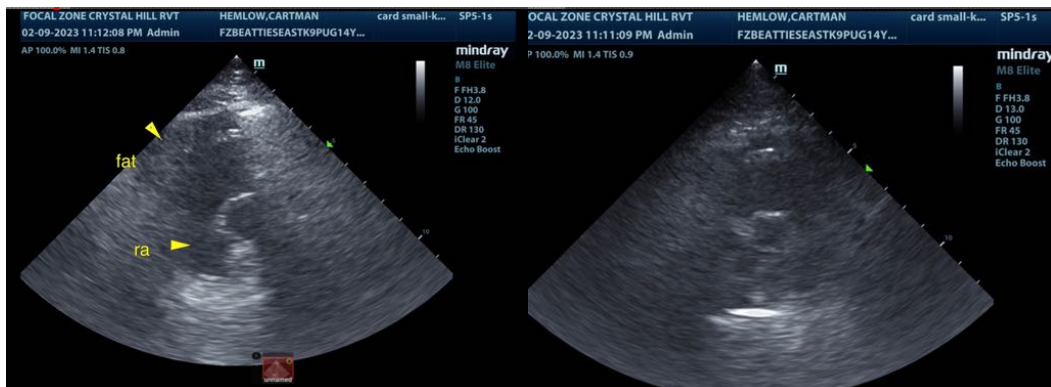
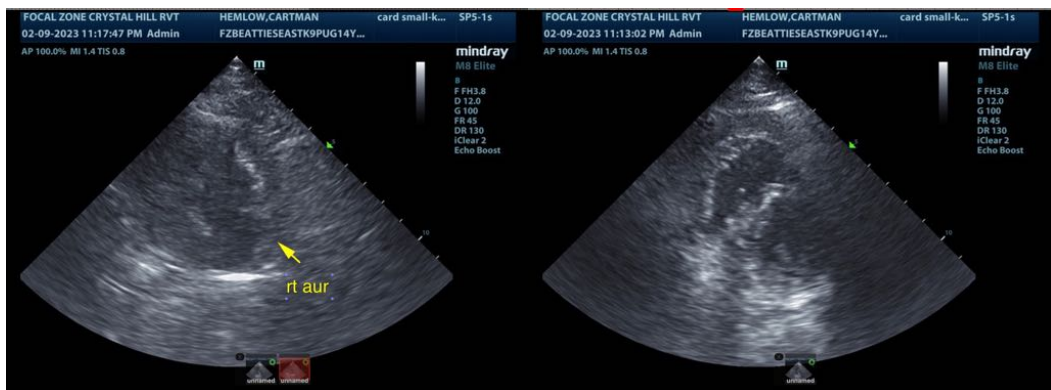
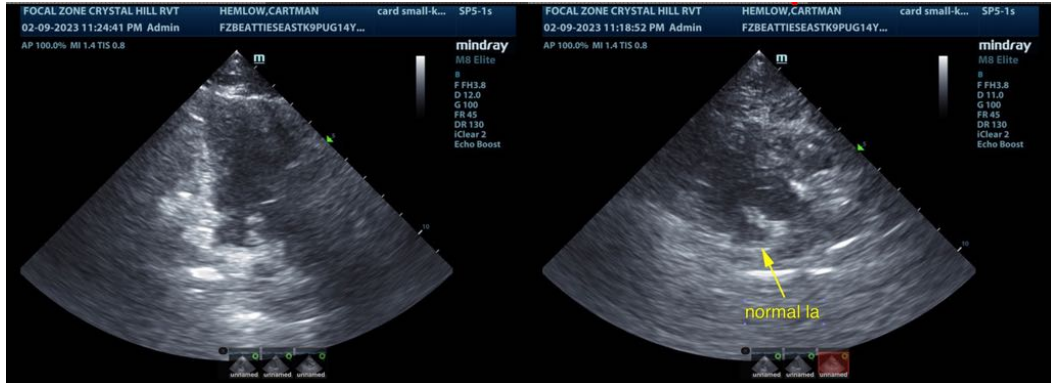
Dr. MacDonald

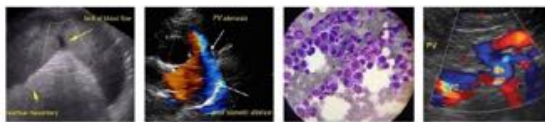
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**PATIENT**

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

**SPECIES**

Canine

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.

**BREED**

Pug

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

**SEX**

Neutered male

**AGE**

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**WEIGHT**

13.25 kg

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DABVP, Cert. IVUSS

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