


**PATIENT**

Gunner Ferner

**PRESENTING CLINICAL SIGNS**

Presented with distended abdomen (ascites present). Grade 3 holosystolic murmur, tachycardia.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Chest rads revealed cardiomegaly with concern for cardiac mass.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**
**BREED**

Golden Retriever

**SEX**

MN

**AGE**

6yr

**WEIGHT**

36.1kg

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	5.0	2.8		1.6	33	66	0.24
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	112	1.6	0.9		4.2	3.9	

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Barthelemy

**HOSPITAL NAME**

 Aspen Animal  
 Hospital

**REFERRING VET**

Dr. Deval

**Cardiac Presentation**

The echocardiogram in this patient demonstrated mild increased 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. Mild MR present 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 increased and normal content. Tricuspid valvular assessment demonstrated adequate linear morphology and kinesis. Mild TR present on Doppler. The right revealed increased size (1/3 diameter of LV), normal myocardial echogenicity and thickness. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). Normal measured RVOT velocity with mild pulmonic insufficiency present on Doppler. A large homogeneous heart base mass within the area of the left and right atria was present measuring ~ 7-8 cm in diameter. No overt pleural or pericardial free fluid was observed.

**ULTRASONOGRAPHIC FINDINGS**

- Large heart base mass
- Mild compensated mitral valve insufficiency
- RA/RV enlargement suggestive of cor pulmonale
- TV insufficiency-estimated pulmonary pressure gradient suggestive of mild pulmonary hypertension
- Mild pulmonic insufficiency

**INVOICE**

12240ag

**DATE**

11/24/2022



**PATIENT**

Gunner Ferner

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

MN

**AGE**

6yr

**WEIGHT**

36.1kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Barthelemy

**HOSPITAL NAME**

Aspen Animal  
Hospital

**REFERRING VET**

Dr. Deval

**INVOICE**

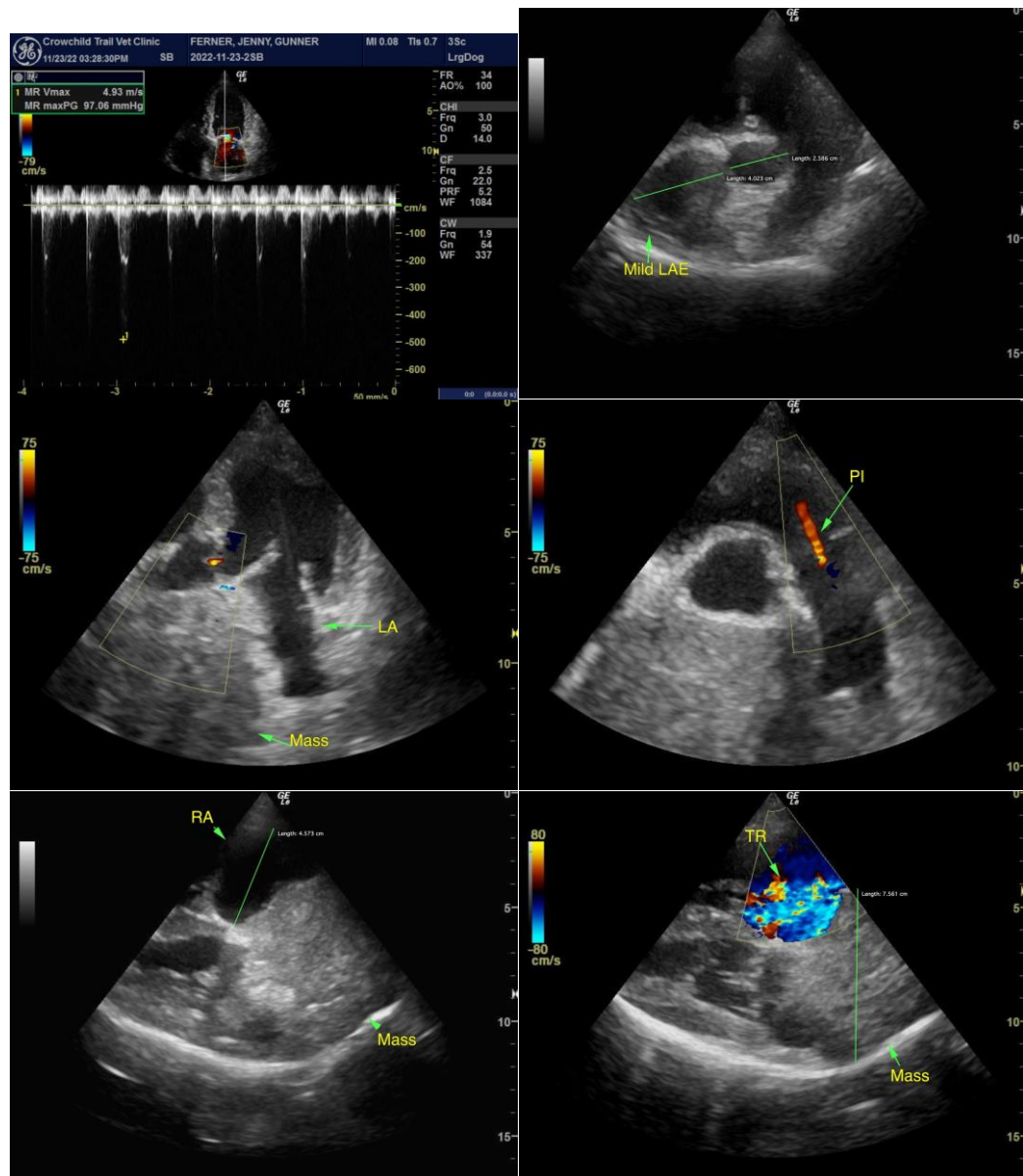
12240ag

**DATE**

11/24/2022

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The confirmed heart base mass is consistent with neoplastic criteria with considerations including sarcoma, chemodectoma or other. Potentially the heart base mass may be accessible to FNA cytology under sedation/anesthesia. The mass may be prohibiting the return of blood from to the right heart resulting in hepatic congestion, cranial abdominal ascites as well as potentially secondary increased pulmonary pressure. Given this presentation thoracic CT with potential oncology consult may be considered. An unfavorable long term prognosis is likely indicated.





## PATIENT

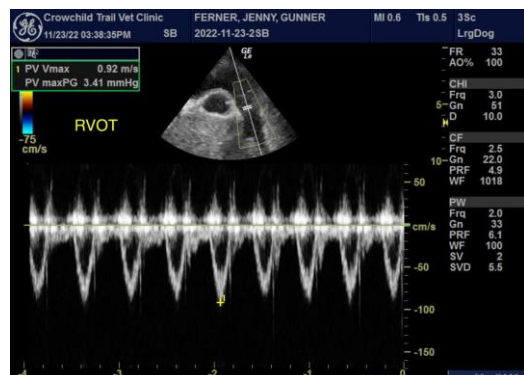
Gunner Ferner

## SPECIES

Canine

## BREED

Golden Retriever



## SEX

MN

## AGE

6yr

## WEIGHT

36.1kg

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Barthelemy

## HOSPITAL NAME

Aspen Animal  
Hospital

## REFERRING VET

Dr. Deval

## INVOICE

12240ag

## DATE

11/24/2022

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.

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)  
[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)