



**PATIENT PRESENTING CLINICAL SIGNS**

Diesel Castaldo decreased appetite. Ascites- tapped 10/6. high protein transudative effusion. Current meds: ICC trilostane (has not given in 2 days)  
Abnormal PE/Chem/CBC/UA Results: Neu 12.53, mono 1.58, PDQ 8.1, BUN 28, ALT 166, CI 105

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

**BREED**

English Bulldog

**SEX**

Neutered Male

**AGE**

10 Years

**WEIGHT**

75 Pounds

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	<1.6	28-40	40-100	<0.6
PATIENT			NM	1.5	31.3	62.7	0.15
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	124	1.0	1.5		3.9	3.19	

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jessica Miller

**HOSPITAL NAME**

Animal General

**REFERRING VET**

Dr. Castimore

**INVOICE**

26164

**DATE**

10/11/21

**Cardiac Presentation**

The echocardiogram in this patient demonstrated overall normal left atrial size. Chamber volume and blood echogenicity were normal. The cranial and caudal mitral valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. The left ventricle presented normal free wall and septal thicknesses with linear contour. Subtle subjective decreased left ventricular volume present. The myocardium presented some echogenic remodeling consistent with expected age-related change. Contractility of the ventricular walls was adequate and in normal range for this breed and patient size. The left ventricular outflow tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the right atrium and auricle revealed mild to moderate increased size with overall normal structure and content without evidence of thrombus. Tricuspid valvular assessment demonstrated expected findings for this age patient. Color doppler assessment of the tricuspid valve revealed insufficiency. The right ventricle exhibited increased size (approx. 1:1 diameter of LV), with normal echogenicity and overall thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, with subjective increased diameter in comparison to the aorta. This may indicate cor pulmonale and elevated pulmonary pressure. No visible pericardial or free pleural fluid was noted. The mediastinum was free of masses in the visible window. A solitary ovoid, mildly non-homogeneous mass was present at the heart base, subjectively in the area of the left atrium and adjacent to the aorta, measuring 5.0 cm x 4.0 cm.

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of – cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or



<b>PATIENT</b>	sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.
Diesel Castaldo	
<b>SPECIES</b>	Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.6 cm. The right kidney measured 7.2 cm.
Canine	
<b>BREED</b>	<b>Adrenal Glands</b>
English Bulldog	The left adrenal gland was indistinctly visualized, subjectively measuring 2.4 cm x 0.62 cm. The right adrenal gland was not definitively visualized.
<b>SEX</b>	<b>Spleen</b>
Neutered Male	The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.
<b>AGE</b>	<b>Liver</b>
10 Years	The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. Subtle prominent hepatic vasculature was present, most notable at the level of the hepatic vein/caudal vena cava, along with mildly prominent caudal vena cava at the level of the liver and diaphragm. No overt evidence of thrombosis. The caudal vena cava measured 1.6-1.7 cm in diameter. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.
<b>WEIGHT</b>	<b>Gastrointestinal</b>
75 Pounds	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.
<b>INTERPRETED BY</b>	The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	Normal visible colon wall layers were present with apparent formed feces in lumen.
<b>IMAGING PERFORMED BY</b>	<b>Pancreas</b>
Jessica Miller	The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.
<b>HOSPITAL NAME</b>	<b>Free Abdomen</b>
Animal General	Moderate ascites was present without overt evidence of concurrent lymphadenopathy. The omentum was of uniform echogenicity.
<b>REFERRING VET</b>	<b>PRIMARY FINDINGS</b>
Dr. Castimore	<ul style="list-style-type: none"> <li>• Heart base mass – sarcoma, chemodectoma, mesothelioma, or other</li> <li>• Mild to moderate RA/RV enlargement with TV insufficiency – suggestive of cor pulmonale and mild to moderate increased pulmonary pressure</li> <li>• Hepatomegaly with mildly prominent caudal vena cava, probable congestive hepatopathy</li> </ul>
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**PATIENT**

- Ascites

Diesel Castaldo

**SECONDARY FINDINGS**

- Moderate chronic renal changes

**SPECIES**

Canine

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**BREED**

English Bulldog

The ascites is most likely owing to elevated pulmonary pressure and cor pulmonale, which may be a concurrent finding, but potentially secondary to decreased left heart venous return resulting in elevated pulmonary pressure, secondary cor pulmonale, mild to moderate pulmonary hypertension, and ascites. The estimated pulmonary pressure gradient in this patient may be underestimated. A sildenafil trial at 0.5-1.0 mg/kg PO BID may be considered. Referral to a local cardiologist and/or CT assessment of the heart base mass (if additional diagnostics are elected) may be considered. A very guarded to unfavorable long-term prognosis, however, is unfortunately warranted.

**SEX**

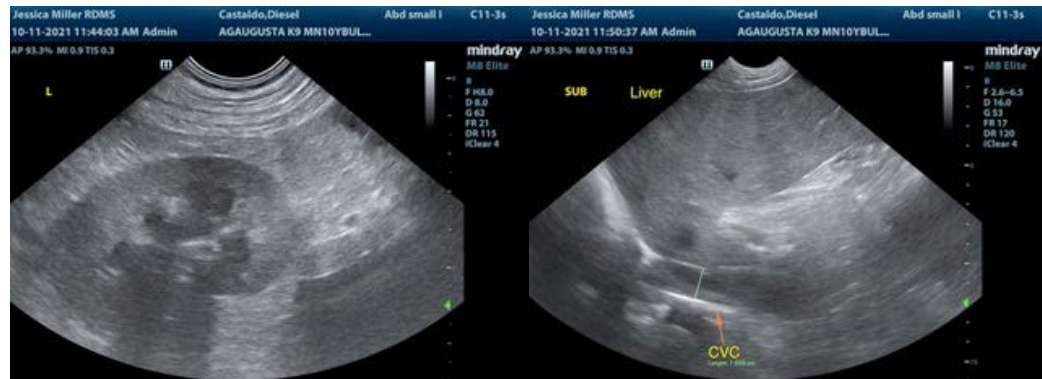
Neutered Male

**AGE**

10 Years

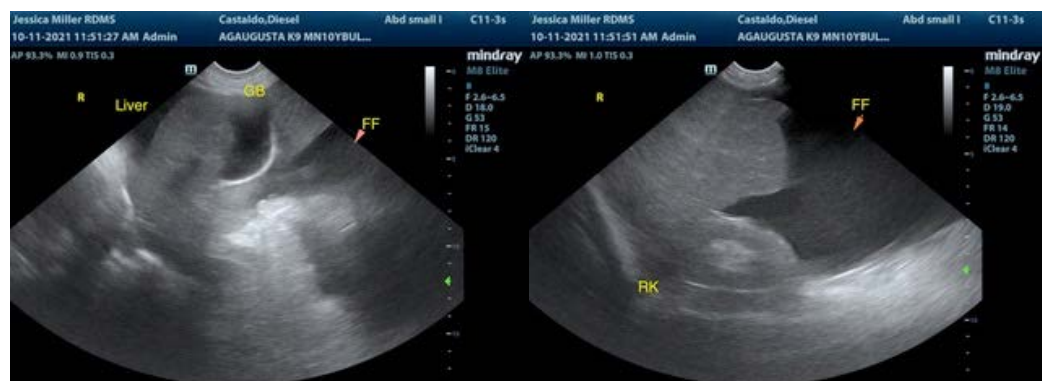
**WEIGHT**

75 Pounds



**INTERPRETED BY**

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



**IMAGING PERFORMED BY**

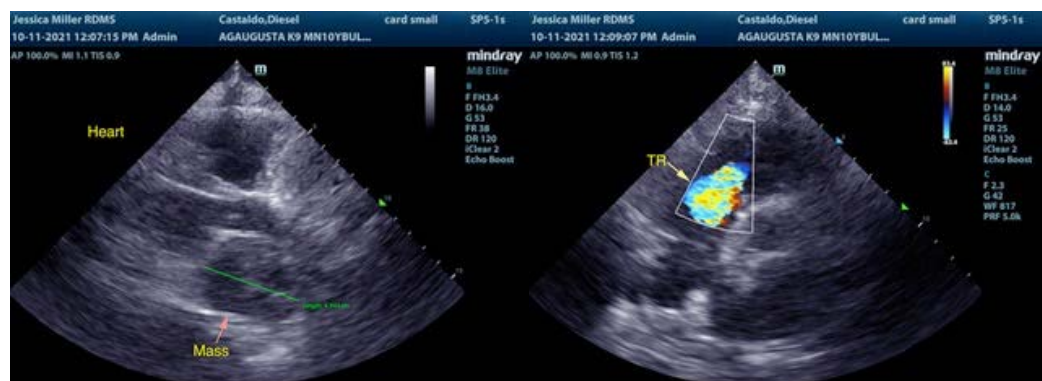
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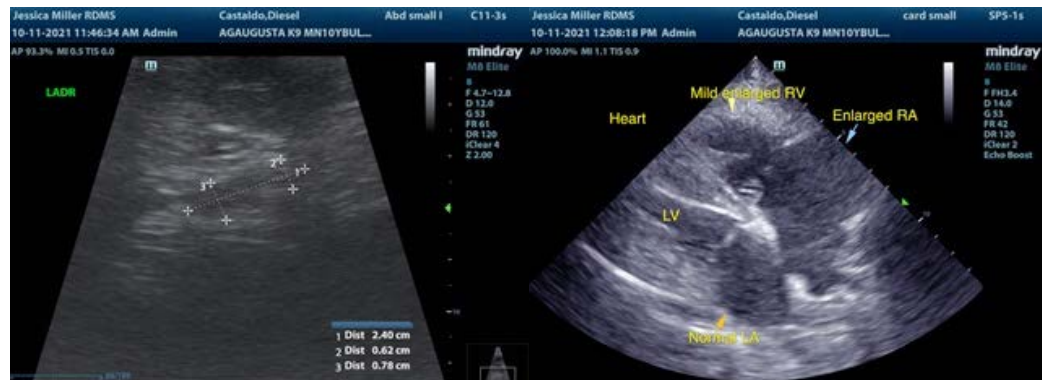
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
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