



**PATIENT**

Diesel Salmon

**SPECIES**

Canine

**BREED**

English bulldog

**SEX**

NM

**AGE**

9 years

**WEIGHT**

61 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Narske

**INVOICE**

12362

**DATE**

10/14/21

**PRESENTING CLINICAL SIGNS**

P presented with distended abdomen, heavy breathing, restless, and decreased appetite. Was in for vomiting 3-4 weeks ago and that has improved, but the decreased appetite has progressed  
Abnormal PE/Chem/CBC/UA Results: 3/6 systolic murmur, tachycardic. tense, distended abdomen, suspect ascites. light pink gums, moderate dental tartar. prolonged CRT

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
<b>CARDIAC PARAMETERS</b>	<b>VMAX</b> (m/s)	<b>VMAX</b> (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>	5.4	3.0	NM	2.5	45.6	76.7	0.38
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
<b>CARDIAC PARAMETERS</b>	(BPM)	<b>VMAX</b> (m/s)	<b>MAX</b> (m/s)	(kg)	2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
<b>PATIENT</b>	161	1.2	1.4		5.2	5.1	

**Cardiac Presentation**

The echocardiogram in this patient demonstrated mildly enlarged **left atrial** size based on 3 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented mild vegetative thickening consistent with endocardiosis without valvular prolapse or chordae tendineae rupture. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with mild increased left ventricle volume. 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 subtle increased size with normal structure and content. No evidence of masses or significant chamber overload was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology. Color doppler assessment of the tricuspid valve revealed insufficiency. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

**PATIENT*****Urinary System***

Diesel Salmon

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

**SPECIES**

Canine

The residual prostate was sonographically unremarkable.

**BREED**

English bulldog

The bilateral kidneys exhibited mild generalized enlargement with multifocal, hypoechoic to expansive corticomedullary nodules. Mild pyelectasia was noted in the right kidney. The nodular changes were more prominent in the right kidney. The left kidney measured 9.3 cm in length. The right kidney measured 9.7 cm in length.

**SEX**

NM

***Adrenal Glands***

The bilateral adrenal glands were not definitively visualized owing to periadrenal omental nodules to lymph nodes. Potential for bilateral adrenomegaly or potential infiltrative disease may be possible.

**AGE**

9 years

***Spleen***

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present. Multiple, variably sized, hypoechoic to nonhomogeneous nodules were present. An example of a splenic nodule measured 2.5 cm in diameter. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

**WEIGHT**

61 lbs.

**INTERPRETED BY**

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

***Liver/ Gallbladder***

The liver exhibited generalized enlargement with multifocal hypoechoic to uniformly echogenic nodules to nonhomogeneous nodular mass lesions. An example of a nodular mass lesion measured 4.0 cm x 3.5 cm. No evidence of hepatic vasculature congestion was noted. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

***Gastrointestinal***

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.

**REFERRING VET**

Dr. Narske

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.

Normal visible colon wall layers were present with apparent formed feces in lumen.

**INVOICE**

12362

***Pancreas***

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 were evident.

**DATE**

10/14/21



**PATIENT**

**Free Abdomen**

Diesel Salmon

Multifocal, cranial, mid, and caudal omental lymph nodes were present. The lymph nodes exhibited symmetrical to rounded margination with abnormal width: length ratio (>0.5). The enlarged lymph nodes were bordered by echogenic to reactive mesentery. An example of the lymph nodes measured 3.4 cm x 2.5 cm. Moderate peritoneal free fluid was present. Generalized increased omental echogenicity was noted.

**SPECIES**

Canine

**BREED**

English bulldog

**SEX**

NM

**AGE**

9 years

**WEIGHT**

61 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Narske

**INVOICE**

12362

**DATE**

10/14/21

**ULTRASONOGRAPHIC FINDINGS**

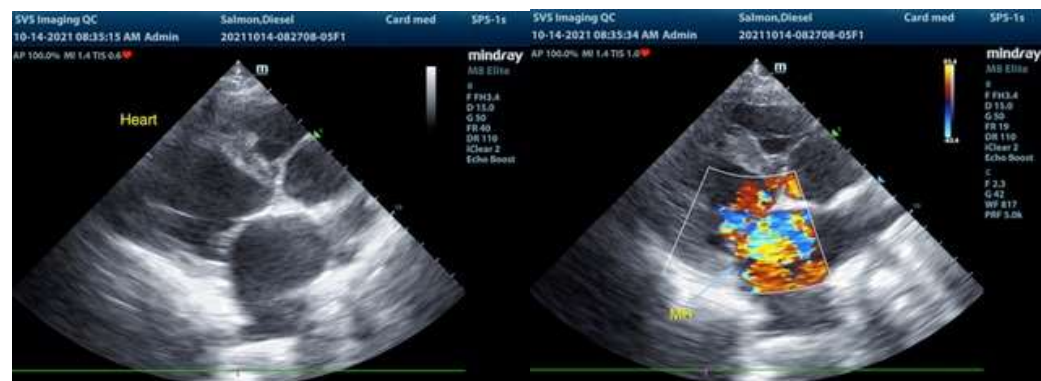
**Primary Findings**

- Mitral valve disease (ACVIM B2)
- Tricuspid valve insufficiency - estimated pulmonary pressure gradient (35-39 mmHg) consistent with mild elevated pulmonary pressures
- Multicentric intraabdominal neoplasia involving the liver, bilateral kidneys, omental lymph nodes, likely spleen, with moderate peritoneal free fluid

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The free fluid is likely owing to lymphatic obstruction, given the lack of significant pulmonary hypertension or significant right heart cardiomegaly. Carcinomatosis, lymphomatosis, or sarcomatosis are likely.

Ultrasound-guided FNA of a liver nodule, omental lymph node, or kidney could be considered for further clarification with potential for oncology consultation. However, an unfavorable prognosis is unfortunately indicated.





**PATIENT**

Diesel Salmon

**SPECIES**

Canine

**BREED**

English bulldog

**SEX**

NM

**AGE**

9 years

**WEIGHT**

61 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

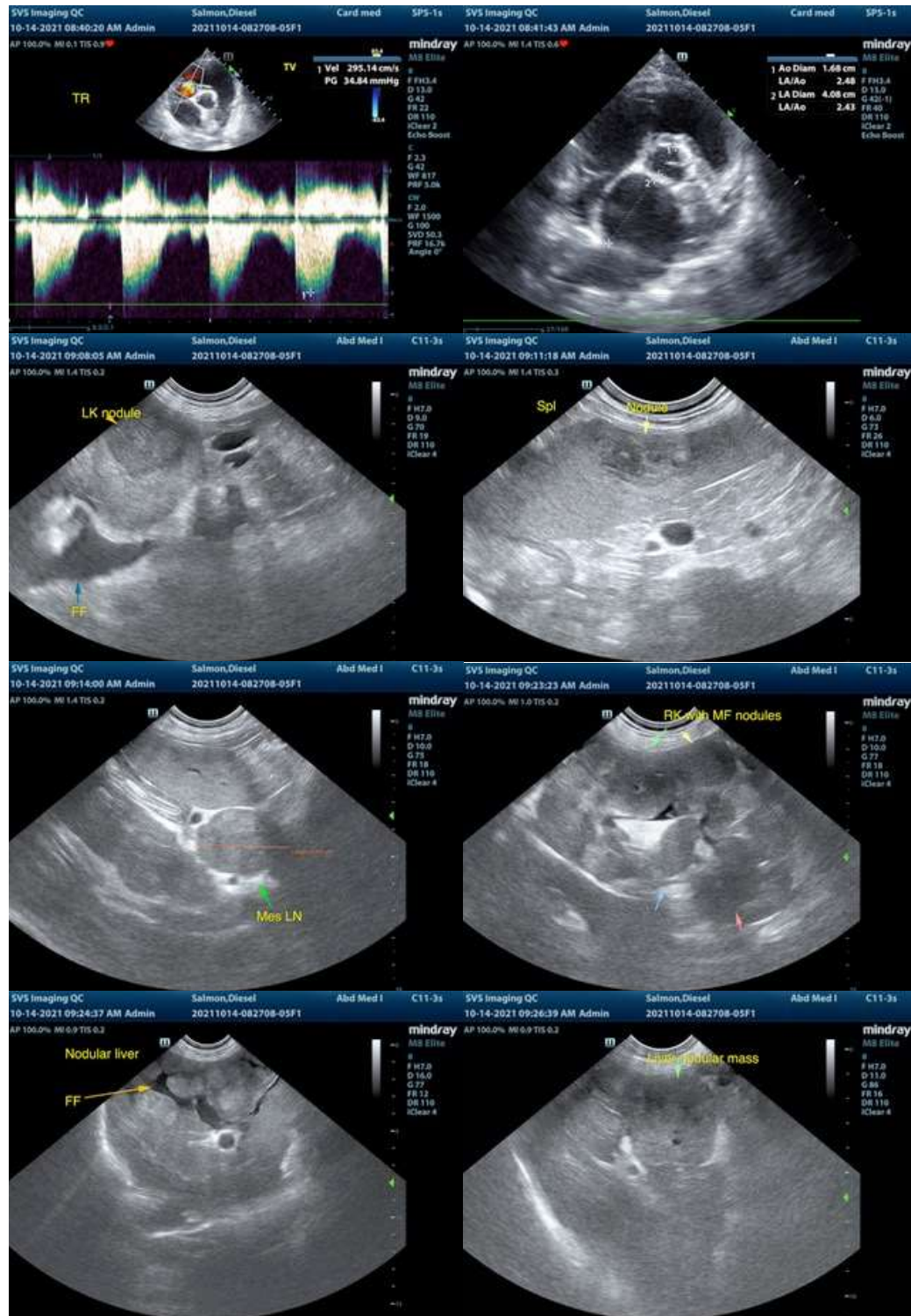
Dr. Narske

**INVOICE**

12362

**DATE**

10/14/21



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

IMAGING PERFORMED BY

[www.svsmobilityimaging.com](http://www.svsmobilityimaging.com) 309-333-3070



Clinical Sonography & Telectology

EDUCATIONAL TELECONSULTATION SERVICES™

1-800-838-4288 [info@sonopath.com](mailto:info@sonopath.com) [Sonopath.com](http://Sonopath.com)

**PATIENT**

Diesel Salmon

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.

**SPECIES**

Canine

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**

**BREED**

English bulldog

**SEX**

NM

**AGE**

9 years

**WEIGHT**

61 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Narske

**INVOICE**

12362

**DATE**

10/14/21