


PATIENT PRESENTING CLINICAL SIGNS

Spud Kennah Has referred upper airway sounds and coughs when leash pulled by owner. Has been on Clavaseptin and Prednisone and Eye meds. HR 120/RR30.

SPECIES No heart murmur noted. Neoplasia? Age changes? Enlarged heart pushing on trachea?

Canine

BREED ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

English Bulldog X

SEX

MN

AGE

11 yrs

WEIGHT

33.9 kg

INTERPRETED BY

R. McKenzie Daniel,
 DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Ancaster

REFERRING VET

Dr. Davis

INVOICE

15668

DATE

12/20/22

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
CARDIAC PARAMETERS	VMAX (m/s)	VMAX (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT		2.5	1.35	1.5	38.2	69	0.35
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (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)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	137	1.3	1.0		5.3	4.8	

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. No overt MR on Doppler. The **left ventricle** presented normal 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. Normal measured LVOT velocity was noted. 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. Mild TR was present on Doppler. 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). Normal measured RVOT velocity was noted. No visible **pericardial** or free pleura fluid was noted. No overt cardiac tumors, while the cranial mediastinal pericardial and extra cardiac regions were free of overt pathology in the visible window. No arrhythmia was noted.



PATIENT

Urinary System

Spud Kennah

The urinary bladder, trigone, and cystourethral junction 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 area of the aortic trifurcation was free of pathology.

BREED

English Bulldog X

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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation or pyelectasia was present. Right kidney focal nonobstructive medullary mineralization was noted. The left kidney measured 6.3 cm in length. The right kidney measured 5.4 cm in length.

SEX

MN

Adrenal Glands

AGE

11 yrs

The left adrenal gland exhibited mild irregular mid to cranial enlargement exhibiting non-homogeneous, potentially pinpoint hyperechoic parenchyma. Subjective maintained capsule integrity was present without overt evidence of capsular escape or obvious vascular invasion. The cranial left adrenal gland measured 2.0 cm width and 0.65 cm width at the caudal pole.

WEIGHT

33.9 kg

The right adrenal gland was indistinctly visualized exhibiting potential for mild parenchyma heterogeneity and mild capsule asymmetry without suspicion for overt neoplasia. The right adrenal gland measured 1.8 cm length x 0.8 cm width in the caudal pole.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

Spleen

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.

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Ancaster

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

REFERRING VET

Dr. Davis

Gastrointestinal

INVOICE

15668

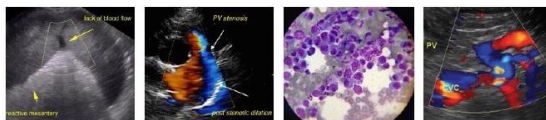
The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

DATE

12/20/22

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.


PATIENT
Pancreas

Spud Kennah

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.

SPECIES

Canine

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

BREED

English Bulldog X

ULTRASONOGRAPHIC FINDINGS
SEX

MN

AGE

11 yrs

- Overtly normal cardiac structure and function for breed
- Mild TR - estimated pulmonary pressure gradient suggestive of mild increased pulmonary pressure, yet not consistent with clinical pulmonary hypertension
- Enlarged to mildly irregular left adrenal gland
- Mild age-related kidneys with nonobstructive right kidney medullary mineral
- Minor hepatic parenchymal remodeling - benign

WEIGHT

33.9 kg

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cardiac presentation without overt evidence of clinical pulmonary hypertension or cor pulmonale was not overtly consistent with definitive cardiogenic cause of the patient's coughing.

INTERPRETED BY

 R. McKenzie Daniel,
 DVM, DABVP

Breed-associated upper or lower airway disease, or given the patient's body condition, potential Pickwickian Syndrome is suspected. No indication for cardiac medications. No overt evidence of cardiac or pericardial neoplasia was noted. If strong clinical suspicion for tracheal deviation in the area of the heart base, thoracic CT could be considered for further assessment of potential non-visualized lower airway disease.

**IMAGING
 PERFORMED BY**

Crystal Hill

HOSPITAL NAME

Beatties PH Ancaster

The enlarged to mildly irregular cranial left adrenal gland is of unclear clinical significance with considerations including patient / age-related variant, benign hyperplasia, and adenomatous change, while the possibility of emerging left adrenal neoplastic criteria i.e., pheochromocytoma, adenocarcinoma, or other cannot be excluded. Screening blood pressure is recommended to assess for evidence of hypertension, which may allude to an emerging left pheochromocytoma. Ideally, sonographic monitoring of the left and ideally bilateral adrenal glands for evidence of progression potentially under sedation with an initial recheck in 4-6 weeks is suggested.

REFERRING VET

Dr. Davis

INVOICE

15668

DATE

12/20/22



PATIENT

Spud Kennah

SPECIES

Canine

BREED

English Bulldog X

SEX

MN

AGE

11 yrs

WEIGHT

33.9 kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Ancaster

REFERRING VET

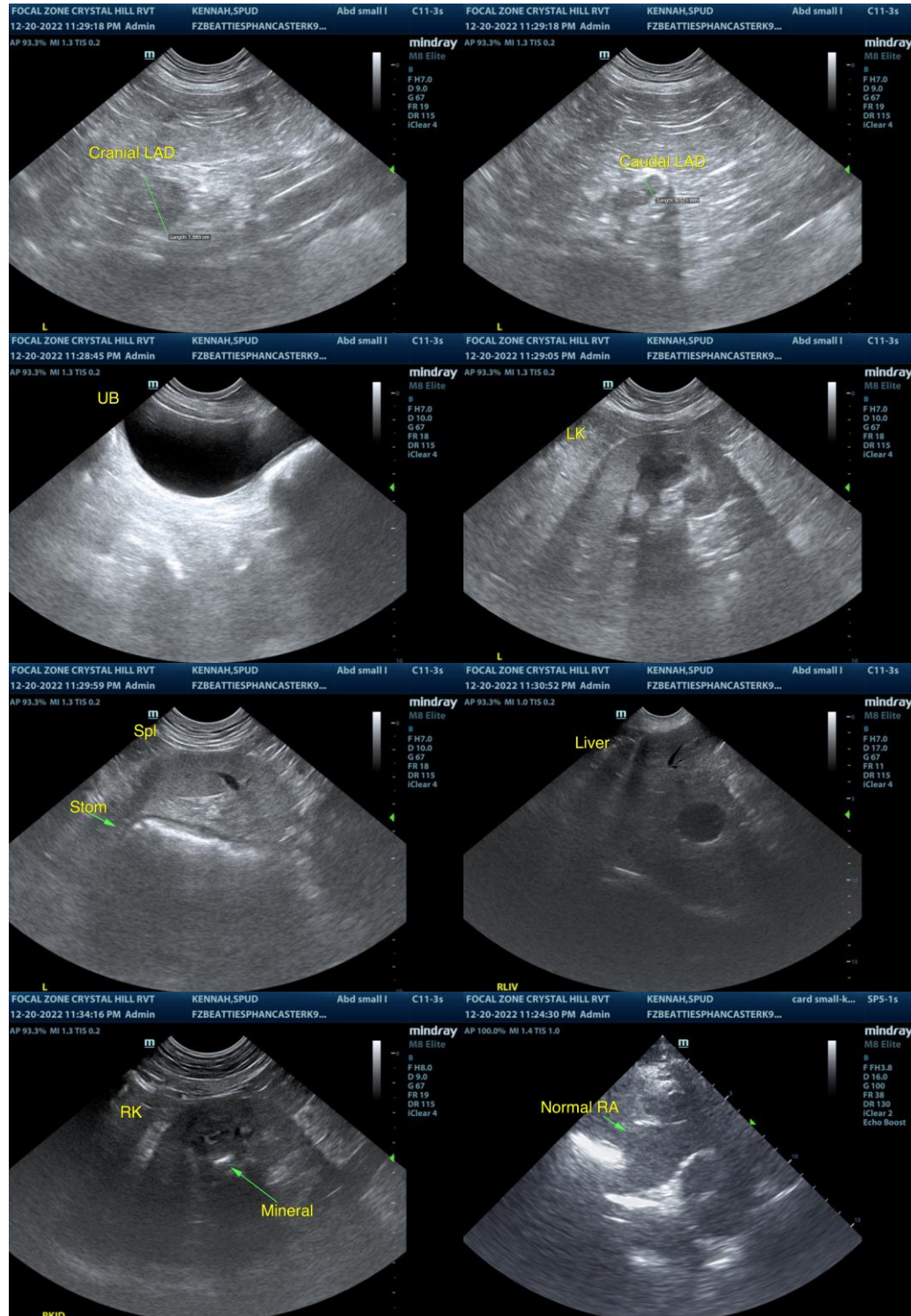
Dr. Davis

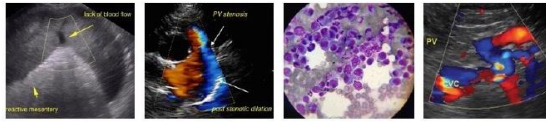
INVOICE

15668

DATE

12/20/22





PATIENT

Spud Kennah

SPECIES

Canine

BREED

English Bulldog X

SEX

MN

AGE

11 yrs

WEIGHT

33.9 kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Beatties PH Ancaster

REFERRING VET

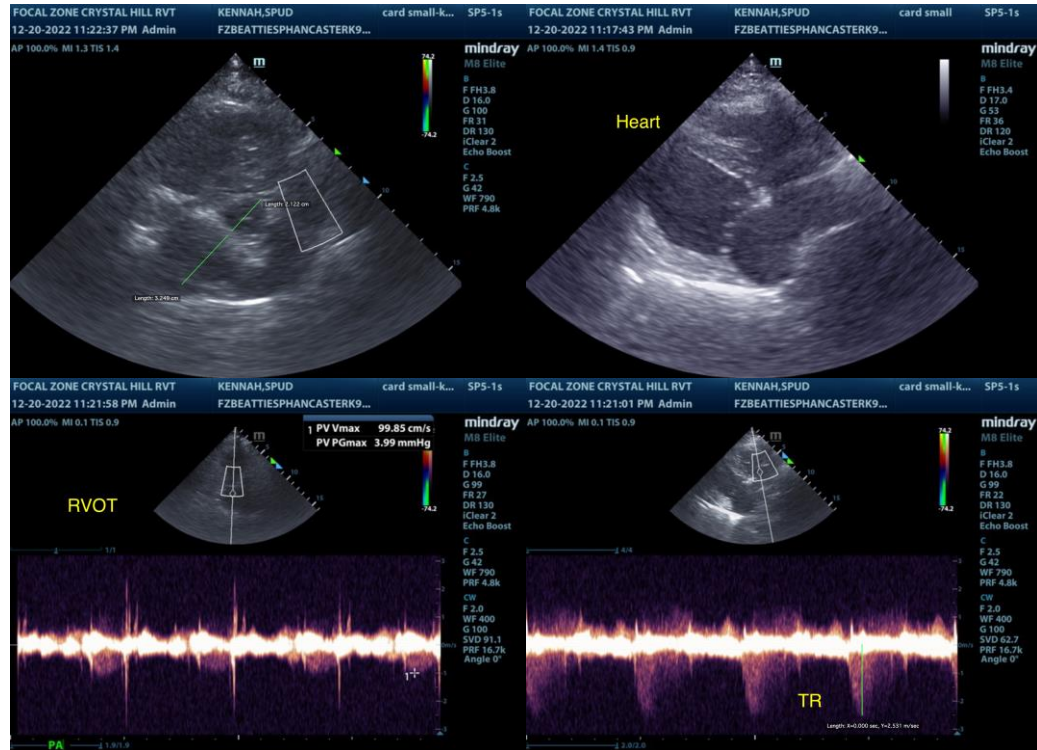
Dr. Davis

INVOICE

15668

DATE

12/20/22



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)
info@SonoPath.com