



PATIENT

Hamlet McCain

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

10 Years

WEIGHT

109 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Harmony AH

REFERRING VET

Dr. Eppler

INVOICE

35700

DATE

2/4/26

PRESENTING CLINICAL SIGNS

- Pleural effusion
- Dyspnea
- O feeding grain free food
- R/O DCM vs neoplasia
- Current meds: Furosemide 100mg bid; Meloxicam 10ml Sid once
- Removed ~2L straw colored /bld tinged fluid between last night and 1 hr before scan.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	--	--	--	1.0	35	66	0.3
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	LAD LA MAX 4 Chamber	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	NM	--	0.8	109 lbs	4.3	3.7	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** dimensions 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. 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 normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right**



PATIENT

Hamlet McCain

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

10 Years

WEIGHT

109 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Harmony AH

REFERRING VET

Dr. Eppler

INVOICE

35700

DATE

2/4/26

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). No visible **pericardial** was noted. A moderate volume, mildly echogenic **pleural** effusion was noted. A nonhomogenous **mass** was noted in the cranial thorax/mediastinum, measuring approximately 6.2 cm in diameter.

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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 were noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture.

Normal size and margination was 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 7.5 cm in length. The right kidney measured 7.7 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.75 cm width at the caudal pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.75 cm width at the caudal pole.

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.

Liver

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance with no evidence 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.

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.

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.



PATIENT

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

Hamlet McCain

Pancreas

SPECIES

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.

Canine

BREED

Free Abdomen

German Shepherd

No overt lymphadenopathy or peritoneal effusion was present.

SEX

ULTRASONOGRAPHIC FINDINGS

Neutered Male

- Normal cardiac structure/function
- Noncardiogenic pleural effusion
- Cranial thoracic/mediastinal mass – consistent with neoplastic criteria
- Sonographically unremarkable abdomen with mild age-related renal changes

AGE

10 Years

WEIGHT

109 Pounds

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INTERPRETED BY

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

No evidence of abdominal visceral pathology, such as primary or metastatic neoplastic criteria. Correlation with pleural effusion analysis, cytology, +/- culture and sensitivity, if evidence of inflammatory component, and if accessible, FNA cytology of the cranial thoracic/mediastinal mass. Thoracic CT may be required for further clarification. No indication for cardiac medications. Cardiac anesthetic risk is considered mild. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Harmony AH

REFERRING VET

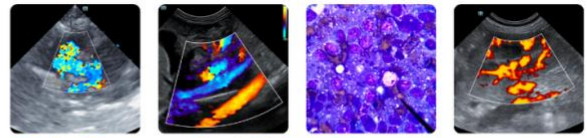
Dr. Epple

INVOICE

35700

DATE

2/4/26



PATIENT

Hamlet McCain

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

10 Years

WEIGHT

109 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Harmony AH

REFERRING VET

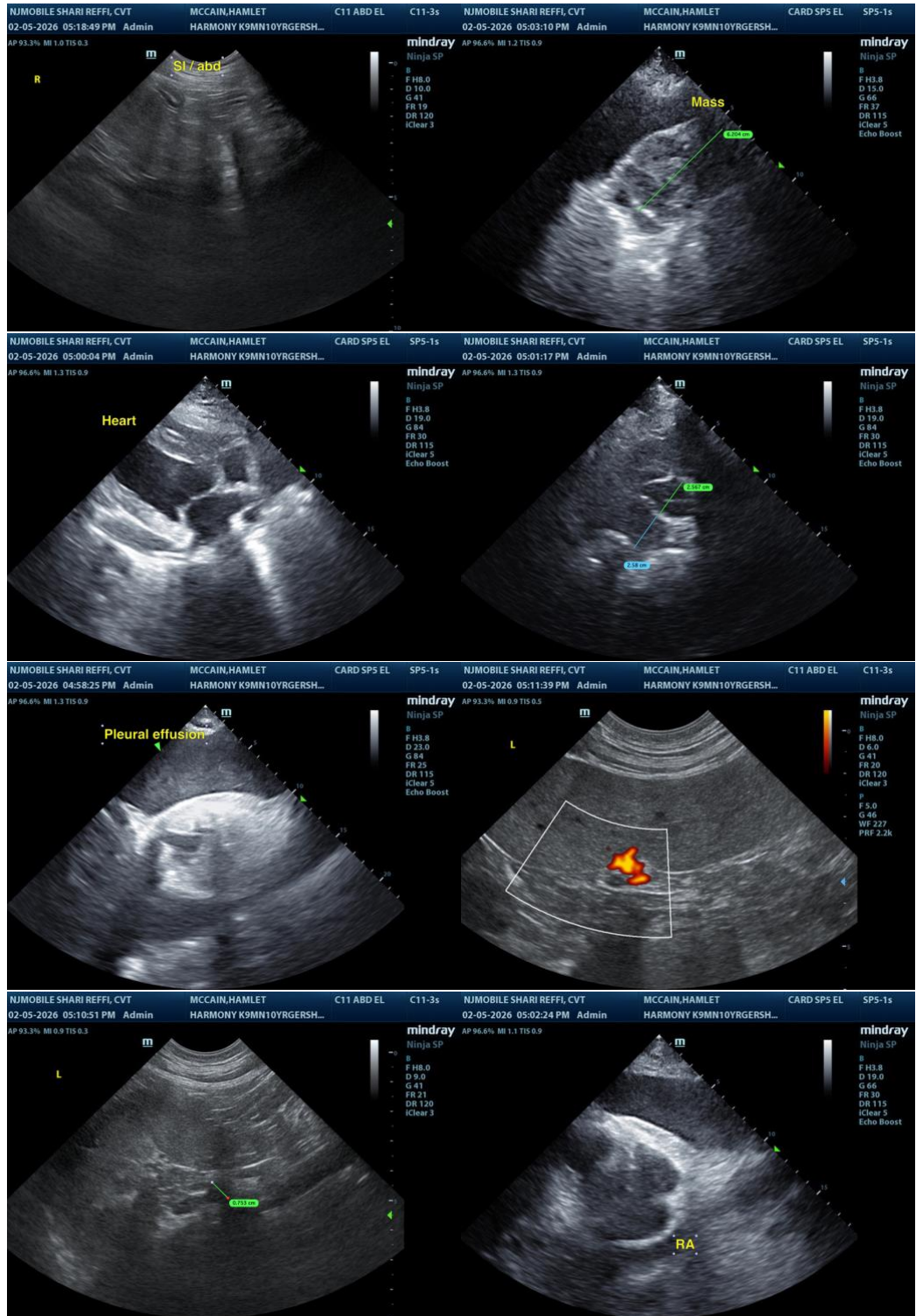
Dr. Eppler

INVOICE

35700

DATE

2/4/26





PATIENT

Hamlet McCain

SPECIES

Canine

BREED

German Shepherd

SEX

Neutered Male

AGE

10 Years

WEIGHT

109 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Harmony AH

REFERRING VET

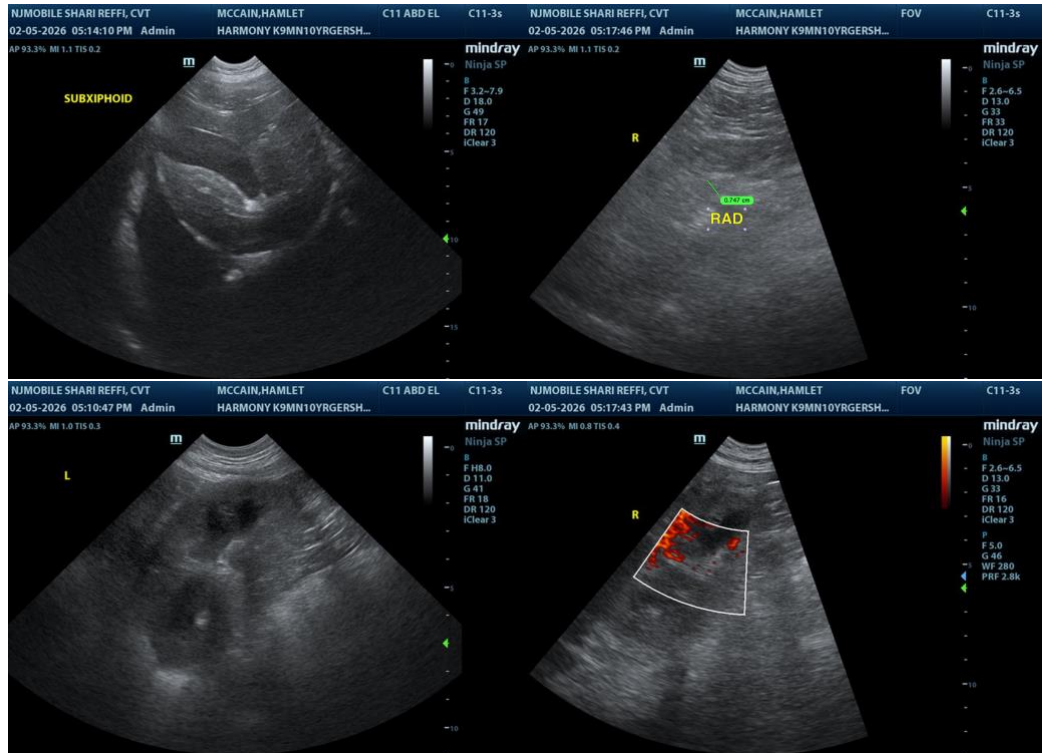
Dr. Epple

INVOICE

35700

DATE

2/4/26



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