



PATIENT PRESENTING CLINICAL SIGNS

Nala Hebert Frequent PVCs on Pre-Anesthesia ECG. No murmur. Current medications - Galliprant, Apoquel, Cosequin, Denamarin. Sedated with Gabapentin

SPECIES Abnormal PE/Chem/CBC/UA Results: BUN 31, ALT 389, USG 1.024

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

BREED

Mixed

SEX

Spayed Female

AGE

15 Years

WEIGHT

48.9 pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Vincent Ravancho CVT

HOSPITAL NAME

The Gentle Vet

REFERRING VET

Dr. Dulude

INVOICE

15467

DATE

04/24/26

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	NM	>2.0	NM	1.4	50	82	0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (lbs)	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	141	1.2	1.0	48.9	3.6	3.4	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented thickening consistent with mild degenerative change/endocardiosis. Doppler revealed mild eccentric MR. 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 or chamber overload. **Tricuspid** valvular assessment demonstrated mild thickening with mild TR on doppler. 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 cardiac / pericardial tumors was visible. No evidence of arrhythmia.

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or



PATIENT

Nala Hebert

sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic change were noted.

The area of the aortic trifurcation was free of pathology.

SPECIES

Canine

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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.0 cm in length. The right kidney measured 6.0 cm in length.

BREED

Mixed

Adrenal Glands

SEX

Spayed Female

The adrenal glands were indistinctly visualized owing to subjective isoechoic adrenal parenchyma compared to adjacent omentum. The left adrenal gland subjectively measured 0.77 cm width at the caudal pole. The right adrenal gland subjectively measured 0.72 cm width at the caudal pole.

AGE

15 Years

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.

WEIGHT

48.9 pounds

INTERPRETED BY

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

Liver & Gallbladder

The liver presented subjective mildly enlarged exhibiting mild asymmetrical contour and nonhomogenous variably hyperechoic hepatic parenchyma exhibiting variable coarse echotexture and parenchymal remodeling. Nonhomogenous mid liver intraparenchymal mass was present measuring 5.0 cm in diameter along with concurrent discrete parenchymal nodular changes.

IMAGING PERFORMED BY

Vincent Ravancho CVT

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

HOSPITAL NAME

The Gentle Vet

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. Dulude

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

15467

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 was evident.

DATE

04/24/26

Free Abdomen



PATIENT

Nala Hebert

No significant lymphadenopathy, omental masses or peritoneal effusion was present. A discrete soft tissue echo was present in the subjective caudal vena cava lumen at the level of the adrenal glands measuring approximately 1.0 cm in diameter.

SPECIES

Canine

BREED

Mixed

SEX

Spayed Female

ULTRASONOGRAPHIC FINDINGS

- Compensated mitral valve insufficiency (B1).
- Tricuspid insufficiency- no evidence of clinical pulmonary hypertension.
- Hepatopathy exhibiting nonhomogenous nodular parenchyma, nonhomogenous hepatic mass.
- Normal gallbladder.
- Chronic renal changes.
- Indistinct subjective age-related adrenal glands.
- Discrete soft tissue echo in the subjective periadrenal caudal vena cava- small thrombus, potential for nonobvious left or right adrenal vascular invasion is not excluded.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hemodynamic effects of the mitral and tricuspid valve insufficiency appear low without evidence of left or right heart chamber enlargement or pulmonary hypertension.

No indication for cardiac medications. Assuming normal clotting status and using a 25-gauge needle, hepatic parenchyma and if accessible, mass FNA cytology is recommended for further clarification. Adrenal screening could be considered if clinical signs consistent with adrenal disease are non-reported or arise.

AGE

15 Years

WEIGHT

48.9 pounds

If possible, abdominal CT would be ideal for further evaluation of the liver, adrenal glands and caudal vena cava versus serial sonographic monitoring with a recheck in four to six weeks. 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.

INTERPRETED BY

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

IMAGING PERFORMED BY

Vincent Ravancho CVT

HOSPITAL NAME

The Gentle Vet

REFERRING VET

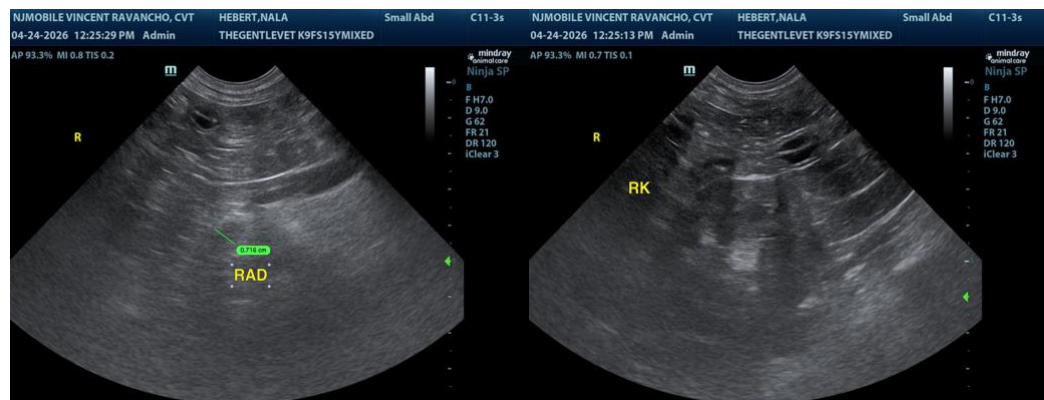
Dr. Dulude

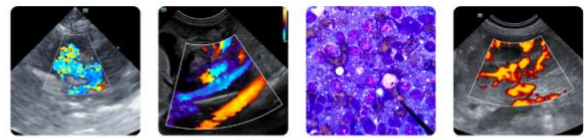
INVOICE

15467

DATE

04/24/26





PATIENT

Nala Hebert

SPECIES

Canine

BREED

Mixed

SEX

Spayed Female

AGE

15 Years

WEIGHT

48.9 pounds

INTERPRETED BY

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

**IMAGING
 PERFORMED BY**

Vincent Ravancho CVT

HOSPITAL NAME

The Gentle Vet

REFERRING VET

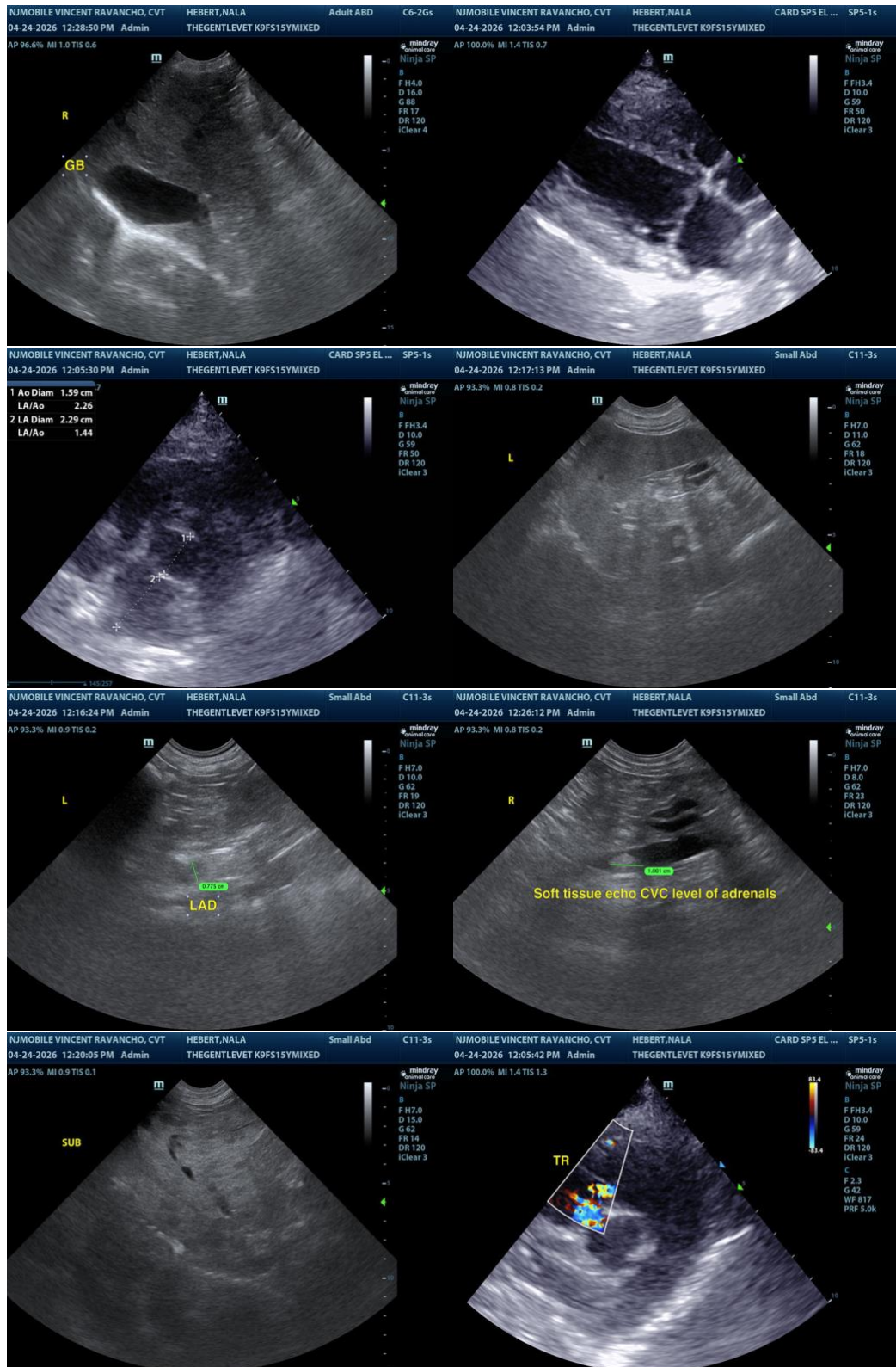
Dr. Dulude

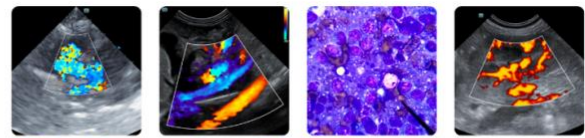
INVOICE

15467

DATE

04/24/26





PATIENT

Nala Hebert

SPECIES

Canine

BREED

Mixed

SEX

Spayed Female

AGE

15 Years

WEIGHT

48.9 pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Vincent Ravancho CVT

HOSPITAL NAME

The Gentle Vet

REFERRING VET

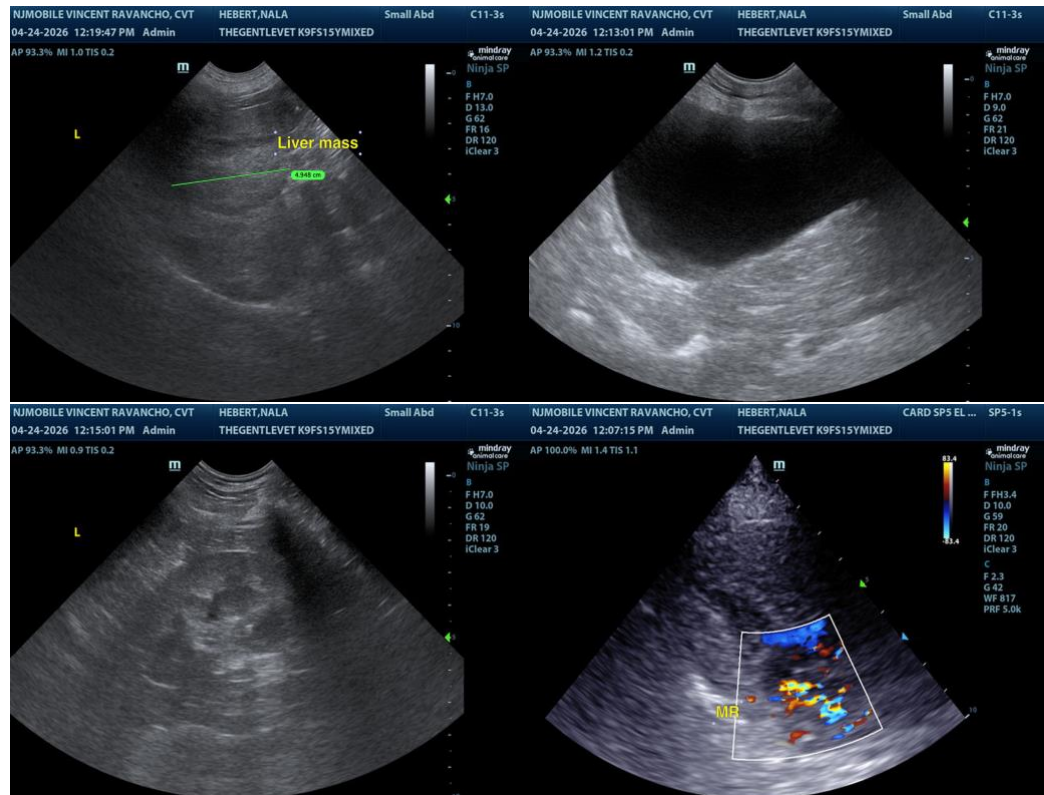
Dr. Dulude

INVOICE

15467

DATE

04/24/26



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