



PATIENT

Rafiki Santiago

SPECIES

Canine

BREED

Labrador Retriever

SEX

Neutered Male

AGE

8 Years 7 Months

WEIGHT

76 pounds

INTERPRETED BY

Eric Lindquist, DMV,
DABVP(CFM), Cert.
IVUSS

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

William Penn
Veterinary Hospital

REFERRING VET

Dr. Mahmoud

INVOICE

15426

DATE

04/23/26

PRESENTING CLINICAL SIGNS

Acute vomiting, decreased appetite, straining to defecate, low BUN, enlarged heart.

Abnormal PE/Chem/CBC/UA Results: BUN-2; MCV-61.4; PDW-8.3

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	5.56	1.8	1.0	1.1	30	26	0.2
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	130	1.32	0.92	76.0	3.7	4.1	--

E-wave velocity: 0.6

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. 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. A large amount of thoracic fat was noted around the heart, which may be creating the potential of cardiomegaly. Occasional arrhythmia was present in this patient.

Urinary System



PATIENT

Rafiki Santiago

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized, and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

SPECIES

Canine

The **prostate** in this patient revealed an irregular mass occupying the prostate and periprostatic urethra. The mass extended 8.0 cm x 3.5 cm. with pericapsular inflammatory pattern.

BREED

Labrador Retriever

The **iliac trifurcation** was unremarkable.

SEX

Neutered Male

The **left kidney** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 3.7 cm in length.

AGE

8 Years 7 Months

The **right kidney** was not visualized.

WEIGHT

76 pounds

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 2.43 cm x 1.43 cm width at the cranial pole and 0.88 cm width at the caudal pole.

INTERPRETED BY

Eric Lindquist, DMV,
DABVP(CFM), Cert.
IVUSS

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

IMAGING PERFORMED BY

Shari Reffi CVT

Liver

HOSPITAL NAME

William Penn
Veterinary Hospital

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

REFERRING VET

Dr. Mahmoud

Gastrointestinal

INVOICE

15426

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

DATE

04/23/26

Pancreas



PATIENT

Rafiki Santiago

SPECIES

Canine

BREED

Labrador Retriever

SEX

Neutered Male

AGE

8 Years 7 Months

WEIGHT

76 pounds

INTERPRETED BY

Eric Lindquist, DMV,
DABVP(CFM), Cert.
IVUS

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

William Penn
Veterinary Hospital

REFERRING VET

Dr. Mahmoud

INVOICE

15426

DATE

04/23/26

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

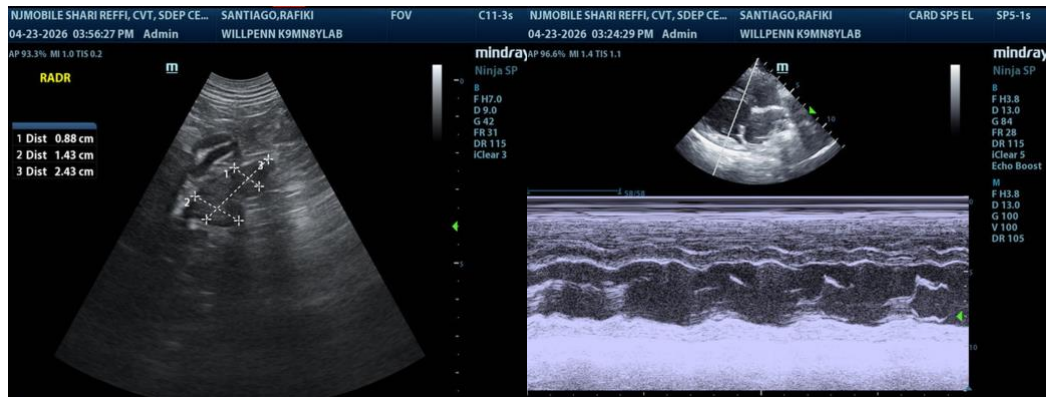
ULTRASONOGRAPHIC FINDINGS

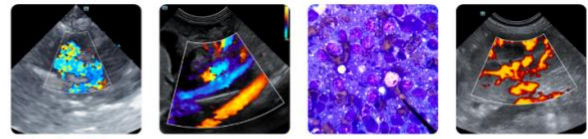
- Stage B1 valvular disease. No evidence of volume overload.
- Prostatic and urethral mass.
- Right renal aplasia- idiopathic finding.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No treatment is warranted at this time. The heart is stable without clinical disease. No overt contraindication for anesthesia of brief to moderate duration. I suggest Torbutrol premed, Propofol induction, Isoflor maintenance or similar protocol if anesthesia is desired. Blood pressure, EKG and chest radiographs are recommended if not already performed. Target white coat negative systolic pressure of < 160 mmHg. If higher than this ACE-inhibitor is suggested to reach this level. Recheck echocardiogram is recommended in 6-12 months, earlier if murmur grade increases or clinical signs initiate. EKG is indicated.

Traumatic catheterization or ultrasound-guided FNA is warranted. However, some potential for trailing exists post-FNA.





PATIENT

Rafiki Santiago

SPECIES

Canine

BREED

Labrador Retriever

SEX

Neutered Male

AGE

8 Years 7 Months

WEIGHT

76 pounds

INTERPRETED BY

Eric Lindquist, DMV,
 DABVP(CFM), Cert.
 IVUSS

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

William Penn
 Veterinary Hospital

REFERRING VET

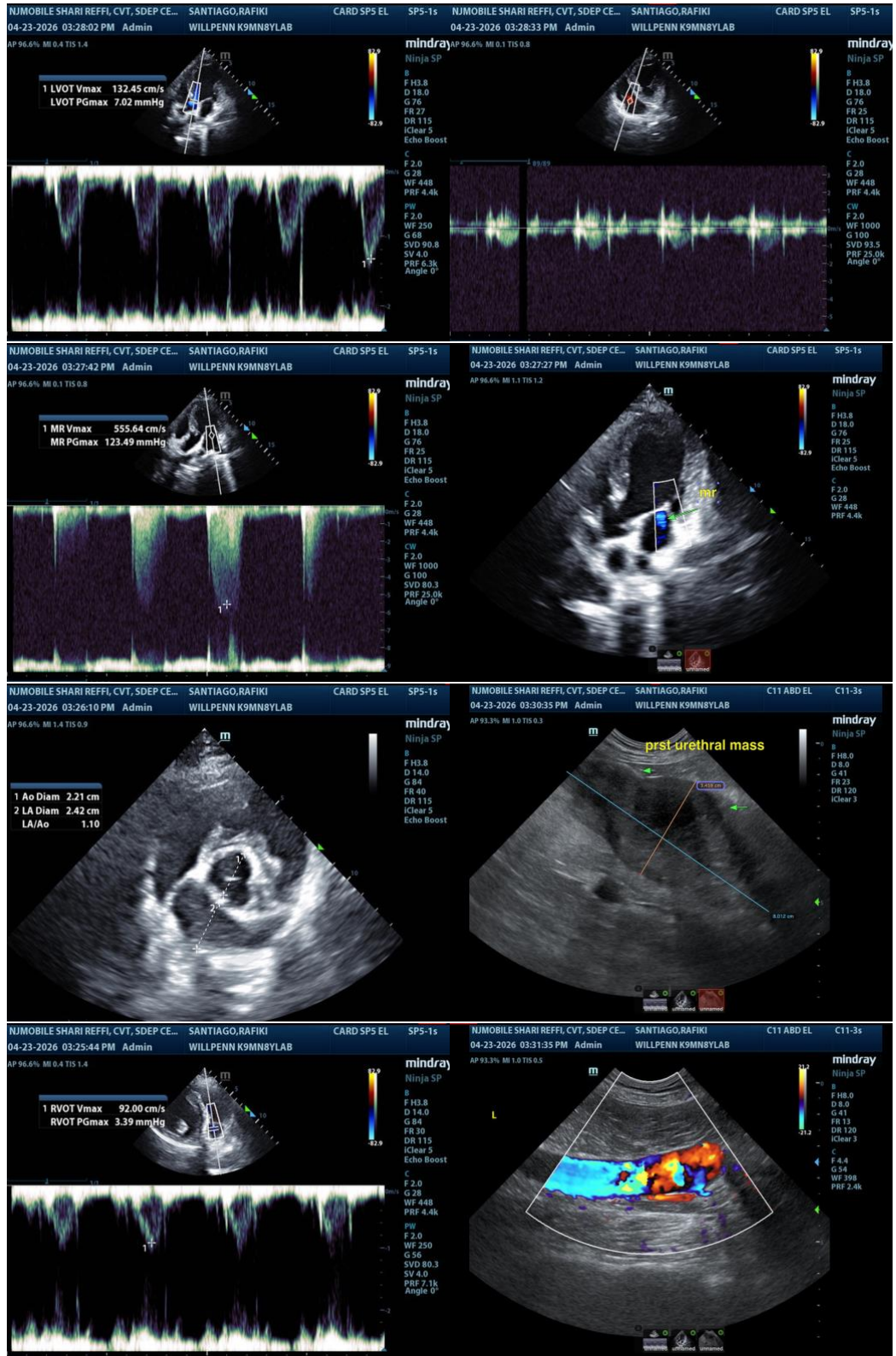
Dr. Mahmoud

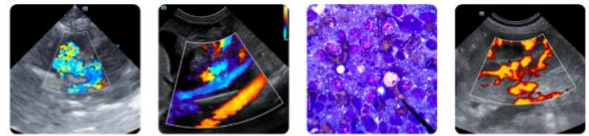
INVOICE

15426

DATE

04/23/26





PATIENT

Rafiki Santiago

SPECIES

Canine

BREED

Labrador Retriever

SEX

Neutered Male

AGE

8 Years 7 Months

WEIGHT

76 pounds

INTERPRETED BY

Eric Lindquist, DMV,
DABVP(CFM), Cert.
IVUSS

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

William Penn
Veterinary Hospital

REFERRING VET

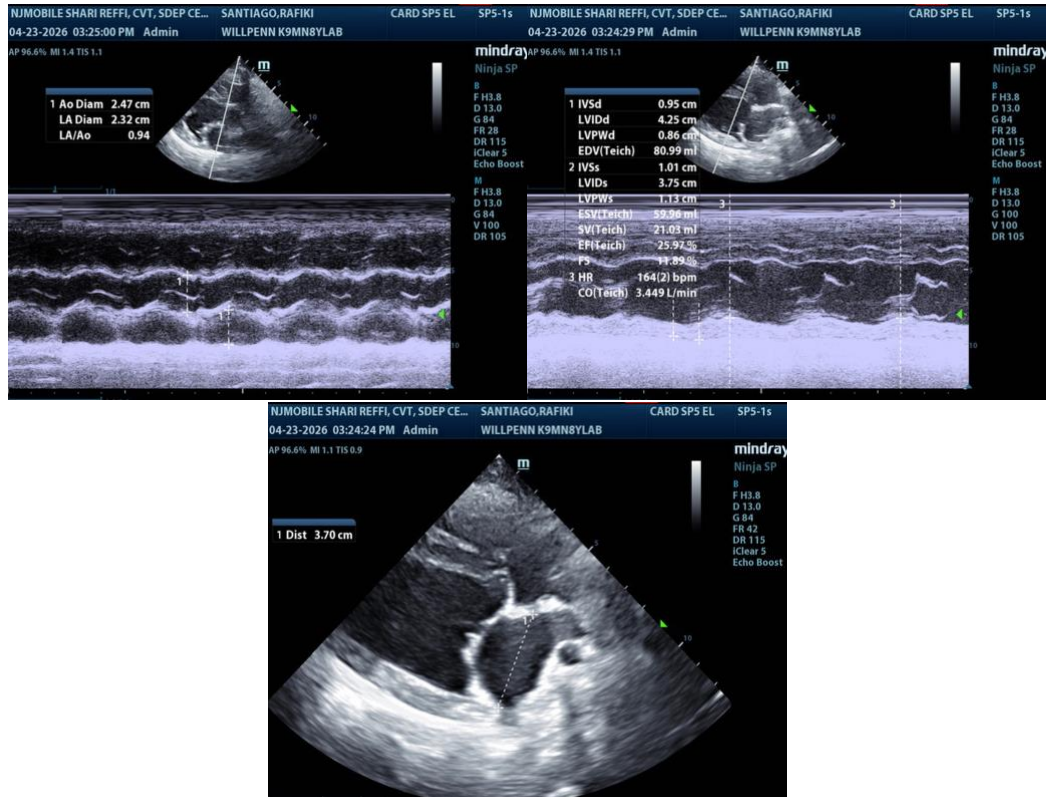
Dr. Mahmoud

INVOICE

15426

DATE

04/23/26



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.

Eric Lindquist, DMV, DABVP(CFM), Cert. IVUSS,

CEO, Owner, Founder -- SonoPath.com

info@SonoPath.com