



PATIENT

Coco Rosa

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Neutered Male

AGE

11 Years

WEIGHT

16 pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Kerri Becker

HOSPITAL NAME

Animal Paradise
Hospital

REFERRING VET

Dr. Elshafie

INVOICE

13002

DATE

01/07/2026

PRESENTING CLINICAL SIGNS

Assess heart prior to surgical procedure and investigate hepatomegaly. 3/6 systolic murmur vascular hepatopathy is prioritized.

Abnormal PE/Chem/CBC/UA Results: UA prot-1+ occult trace blood high, squamous epith 4-10

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	5.5	--	NM	1.2	44	77	0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	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	1.6	1.1	--	2.6	2.7	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** dimension based on 2 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented thickening consistent with endocardiosis. Doppler indicated measurable moderate 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 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 cardiac / pericardial tumors was visible.

Urinary System

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 urine mineral or



PATIENT

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

Coco Rosa

The area of the residual prostate appeared normal and free of pathology.

SPECIES

The area of the aortic trifurcation was free of pathology.

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 4.1 cm in length. The right kidney measured 4.7 cm in length.

BREED

Chihuahua Mix

SEX

Adrenal Glands

Neutered Male

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.34 cm width.

AGE

11 Years

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.68 cm width.

WEIGHT

Spleen

16 pounds

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.

INTERPRETED BY

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

Liver & Gallbladder

IMAGING PERFORMED BY

Kerri Becker

The liver presented mild to moderately enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

HOSPITAL NAME

Animal Paradise
Hospital

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

Gastrointestinal

Dr. Elshafie

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.

INVOICE

13002

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.

DATE

01/07/2026

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

Pancreas

The parenchyma of the right pancreas was hyperechoic to adjacent omental fat with mild hyperechoic parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without



PATIENT

Coco Rosa

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Neutered Male

AGE

11 Years

WEIGHT

16 pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Kerri Becker

HOSPITAL NAME

Animal Paradise
Hospital

REFERRING VET

Dr. Elshafie

INVOICE

13002

DATE

01/07/2026

evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

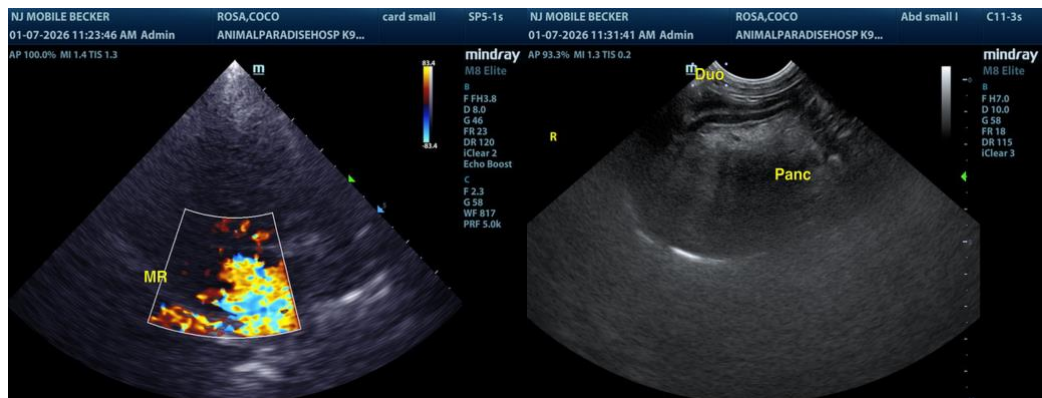
ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (B1).
- Benign hepatopathy.
- Normal gallbladder.
- Age-related renal changes.
- Normal adrenal glands.
- Mild chronic pancreatitis/pancreatic fibrosis pattern.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The lack of left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is low at this time and, without current clinical signs, indicates that medical therapy is not required. Prognosis is considered variable and sonographic monitoring is recommended. Recheck echo cardiogram is suggested in 6-12 months, sooner if clinical signs arise.

The hepatopathy is most consistent with vacuolar hepatopathy criteria. Correlation with hepatic enzyme assessment is recommended. Hepatosupportive medications may prove beneficial. No evidence of adrenal pathology as a contributing factor. A spec cPL could be considered if clinical signs are consistent with chronic pancreatitis. No cardiac or abdominal anesthetic contraindications. 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.





PATIENT

Coco Rosa

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Neutered Male

AGE

11 Years

WEIGHT

16 pounds

INTERPRETED BY

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

**IMAGING
 PERFORMED BY**

Kerri Becker

HOSPITAL NAME

Animal Paradise
 Hospital

REFERRING VET

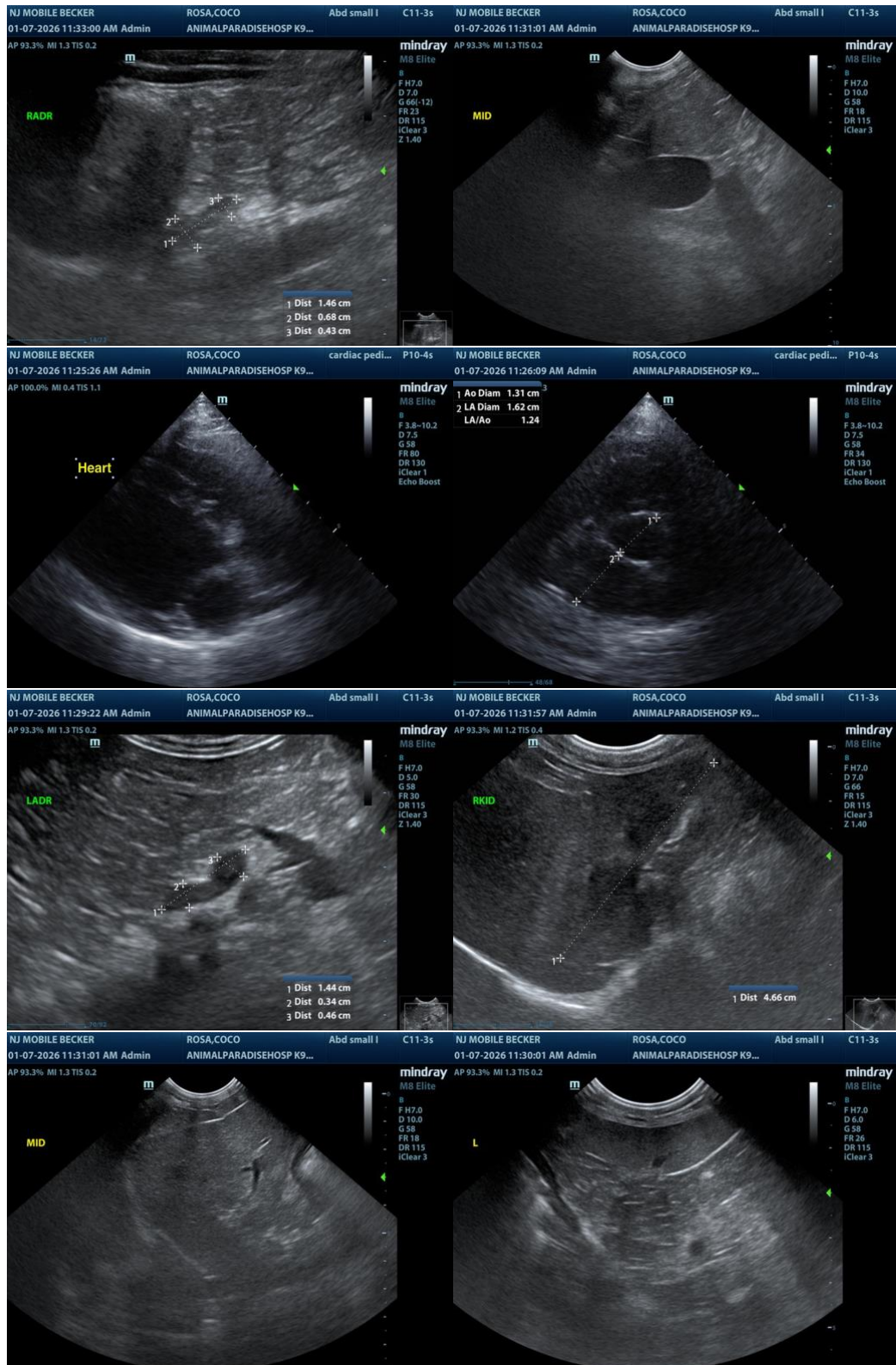
Dr. Elshafie

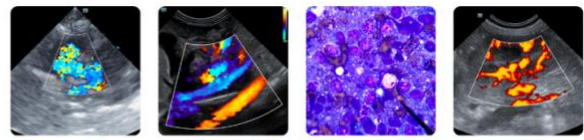
INVOICE

13002

DATE

01/07/2026





PATIENT

Coco Rosa

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Neutered Male

AGE

11 Years

WEIGHT

16 pounds

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Kerri Becker

HOSPITAL NAME

Animal Paradise
Hospital

REFERRING VET

Dr. Elshafie

INVOICE

13002

DATE

01/07/2026



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