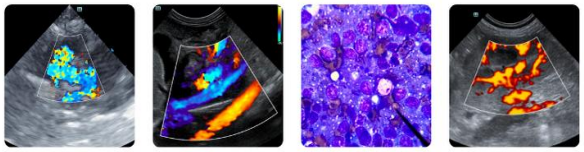


PATIENT

Mimi Cuevas

SPECIES

Canine

BREED

Terrier Mix

SEX

FS

AGE

11yr

WEIGHT

NA

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Kerri Becker

HOSPITAL NAME

Advanced Vet Care Franklin

REFERRING VET

Dr Gad

INVOICE
22999

DATE
11/21/2025

PRESENTING CLINICAL SIGNS

Murmur 4/6 Distended abd. Suspect cushings.

Abnormal PE/Chem/CBC/UA Results: BUN-73 SDMA-30 T4<0.4 Phos-6.7 GGT-142 ALT-221 ALP-3163 BNP-2414 Ua prot-3+ USG-1.014

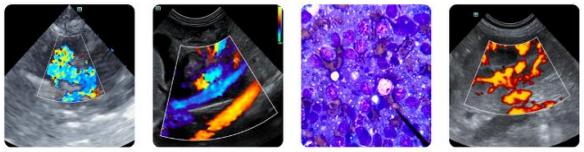
ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

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	6.3	--	--	1.46	46	78	0.2
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	148	1.6	0.97	--	3.1	3.3	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 2 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis with mild valvular prolapse. Doppler indicated measurable moderate to significant eccentric insufficiency. 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. Mild aortic insufficiency present on Doppler. 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). Trace pulmonic insufficiency on Doppler. 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.

Urinary System



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The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no evidence of urine/lumen sediment, mineral, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. Mild bilateral pyelectasia was present. The renal medullary volume was subjectively reduced. The left kidney measured 5.2 cm in length. The right kidney measured 5.4 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

Both adrenal glands were mild asymmetrically enlarged with non-homogenous parenchyma with pinpoint to focal hyperechoic left adrenal foci. The left adrenal gland measured 0.98 cm width at the caudal pole. The right adrenal gland measured 0.9 cm width at the caudal pole.

Spleen

The spleen exhibited normal size and contour with variable, non-disruptive hyperechoic splenic nodules with multifocal pinpoint hyperechoic parenchyma foci.

Liver/Gallbladder

The liver presented 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. The gallbladder was non-distended in size with moderate non-organized non-dependent debris. The common bile duct was not visualized without overt evidence of dilation or post hepatic obstructive criteria.

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 mechanical/metabolic ileus, obstruction or foreign material.

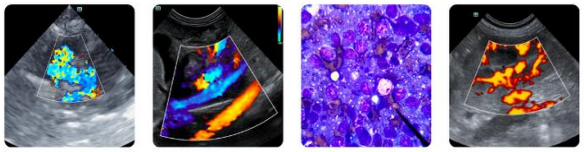
Normal visible colon wall layers were present with apparent formed feces in lumen.

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.

Free Abdomen

No omental masses, overt lymphadenopathy or peritoneal effusion was present.



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ULTRASONOGRAPHIC FINDINGS

Primary

- Chronic mitral valve disease with mild valve prolapse (B1)
- Aortic and pulmonic valve insufficiency
- Benign hepatomegaly
- Non-organized gallbladder debris (non-mucocele)
- Chronic renal changes exhibiting mild pyelectasia
- Bilateral adrenomegaly exhibiting pinpoint left adrenal mineralization.
- Benign hyperechoic splenic nodules and parenchyma foci -myelolipomas, microinfarction, fibrosis, mineralization

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

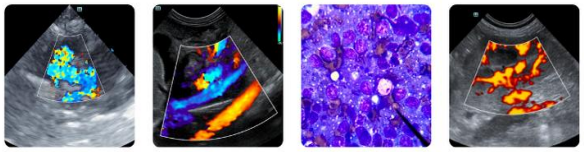
The cause of the murmur is subjective mild chronic degenerative valvular changes with secondary MR. No evidence of additional issues such as DCM criteria, LV systolic dysfunction or clinical pulmonary hypertension. The lack of left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is relatively low at this time and, without current clinical signs, indicates that medical therapy is not required at this stage. Assessment and monitoring of systemic BP for evidence of hypertension given elevated MR velocity and aortic insufficiency is recommended. Prognosis at this stage is variable and serial sonographic monitoring is recommended with a recheck echocardiogram in 6 months, sooner if clinical signs suggestive of heart disease develop. Anesthetic risk is considered mild.

An adrenal workup with LDDST indicated if clinical signs consistent with Cushing syndrome. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Hepatosupportive medications may prove beneficial.

Potential for emerging left adrenal mass given evidence of mineralization which may indicate dystrophic mineralization thought less likely yet not excluded. Sonographic monitoring for evidence of progressive enlargement or mineralization is indicated.

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.

New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



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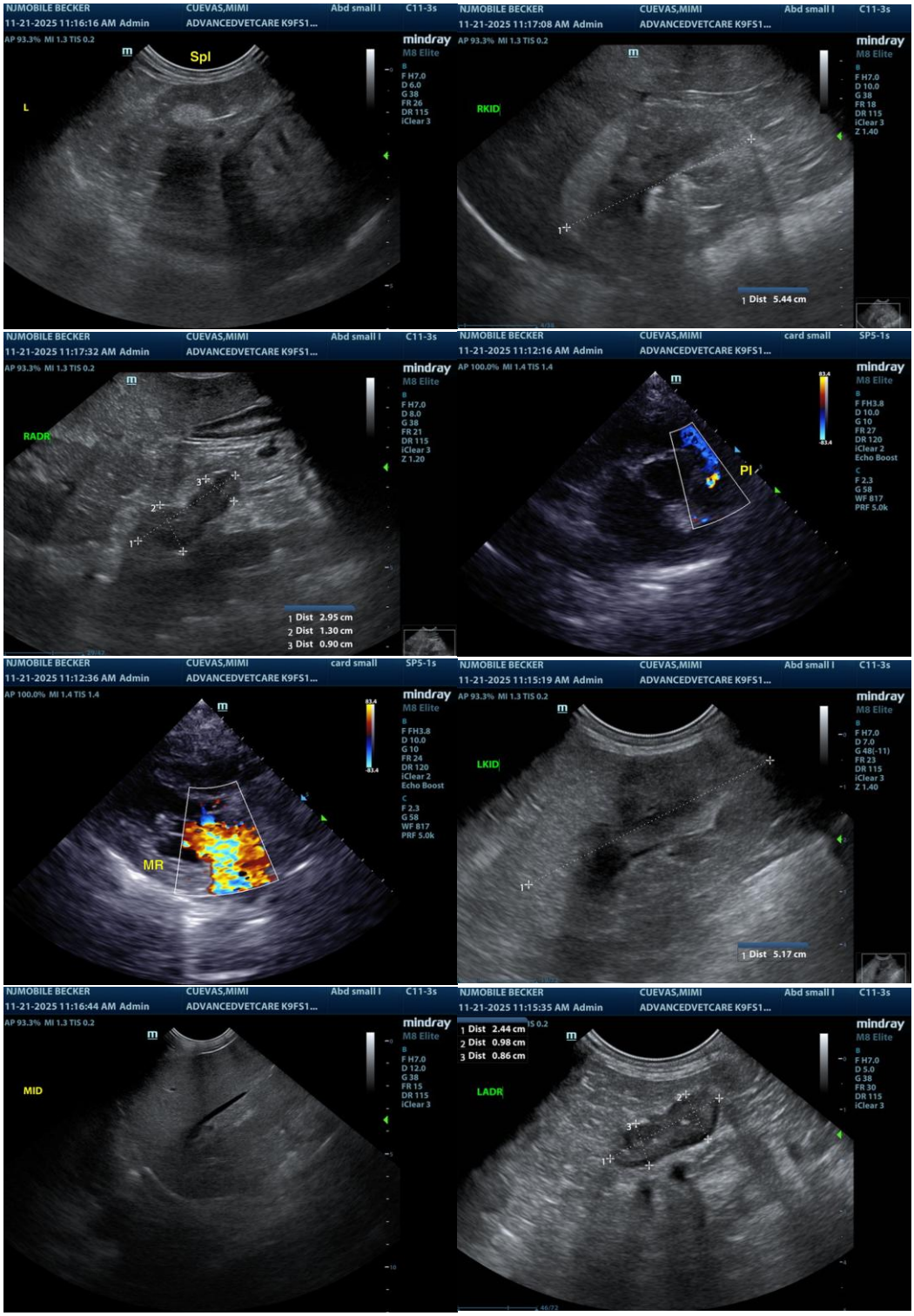

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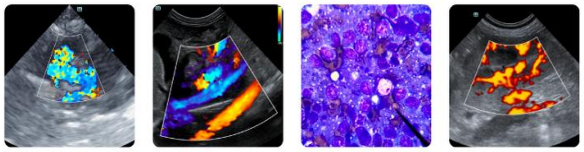

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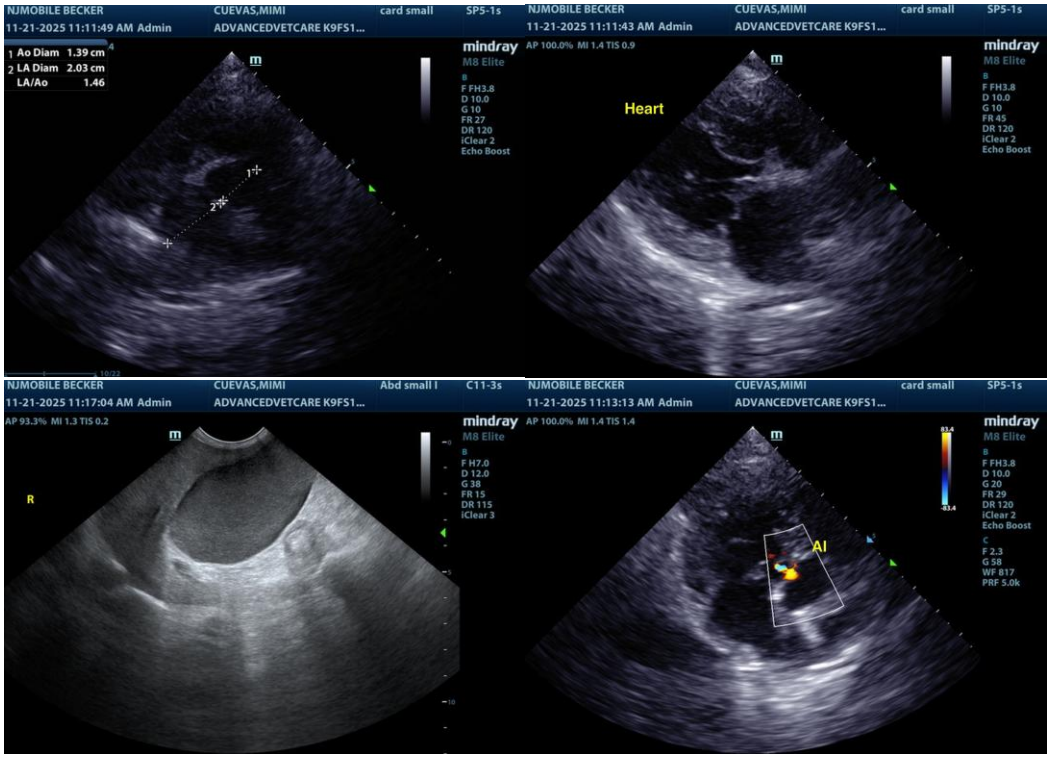

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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