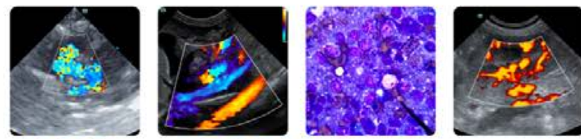

PATIENT

George Richardson

SPECIES

Canine

BREED

Blue Heeler x

SEX

Neutered Male

AGE

8 Years

WEIGHT

52.2 lbs

INTERPRETED BY

Brad Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Shari Reffi, VT

HOSPITAL NAME

The Animal Hospital of Roxbury

REFERRING VET

Dr. Shanna Hickenbottom

INVOICE

72568

DATE

12/15/25

PRESENTING CLINICAL SIGNS

Glasses ingestion, pre-anesthetic ecg for dental: Sinus w/intermittent single VPC,s.
Abnormal PE/Chem/CBC/UA Results: Elevates ALT, ALP

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	BW	HR BPM	LAD 4 ch Long	RAD 4 ch Long	La/Ao Heart Base	LVIDd	LVIDs
NORMAL PARAMETER		50-100			<1.6		
PATIENT	23.73	NM	4.17	2.51	1.27	3.49	2.14
CANINE CARDIAC PARAMETERS	**FS**	**EPSS**	**PV V MAX (m/s)**	**AV V Max (m/sec)**	**MR Vmax**	**TR Vmax**	**RPA distensibility (normal >30%)**
NORMAL PARAMETER	28-40	<0.6	0.7-1.6	0.7-1.7	4.5-5.5	< 2.7	
PATIENT	39	0.4	1.4	1.6	--	1.6	NM

Cardiac Presentation

The left atrium is normal in dimension. The left ventricle is normal in dimension with normal systolic function. The right atrium and ventricle are subjectively normal in dimension and systolic function. The anterior and posterior mitral valve leaflets presented normal linear structure, extension in systole, and union in diastole without regurgitation, prolapse, or myxomatous changes noted. There is trace physiologic tricuspid regurgitation noted. The left ventricular outflow tract demonstrated normal laminar flow and the visible aorta is unremarkable. The right ventricular outflow tract assessment revealed normal laminar flow, and appropriate diameter and distensibility. There is no evidence of semilunar valve insufficiency. There is no visible pericardial, pleural, or free peritoneal fluid noted. The cardiac chambers, pericardial and visible extra-cardiac regions were free of masses, spontaneous echo contrast, or thrombi.

Urinary System

The urinary bladder, trigone, and pelvic urethra are unremarkable with normal wall thicknesses and normal tone. The ureters were not visualized, which is a normal finding. There are no uroliths or sediment noted, and anechoic urine is present. The ureteral papillae appear normal. There is no evidence of inflammatory, infiltrative, or neoplastic disease.

The kidneys are normal in size. The cortices are hyperechoic with a decrease in normal corticomedullary distinction. Cortex to medulla ratio is appropriate with mild dystrophic mineralization. There is no pyelectasia, pelvic dilation, or concern for obstructive disease. The capsules are mildly irregular bilaterally. Left kidney measures 6.02 cm. Right kidney measures 5.94 cm.

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Adrenal Glands

Both adrenal glands are visualized and have 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. Left measures 0.66 cm x 2.23 cm. Right measures 0.65 cm x 2.28 cm.

Spleen

The spleen measures 1.8 cm at the hilus. There are several hypoechoic nodular changes within the otherwise smooth and homogeneous parenchyma. The nodules do not distort the smooth splenic capsule. The splenic vasculature is normal without signs of congestion, spontaneous echo contrast, or thrombosis.

Liver

The liver is subjectively enlarged and diffusely mottled or heterogeneous. Vasculature is within normal limits with no evidence of congestion. There are no overt hepatic nodules or masses noted. There is no hepatic lymphadenopathy present. The gallbladder contains a mild to moderate amount of suspended echogenic debris and dependent sediment. The gallbladder walls are appropriately thin with no evidence of intra- or extrahepatic biliary dilation. The cystic and common bile ducts are normal.

Gastrointestinal

The stomach is mildly distended with echogenic ingesta. There are several irregular, hard shadowing, presumably foreign objects within the fundus. The pylorus and pyloroduodenal junction appear patent with no overt evidence of pyloric outflow obstruction. The small intestine is multifocally mildly distended with echogenic ingesta. There is no evidence for shadowing small intestinal material. The gastrointestinal walls measure within normal limits with maintenance of normal wall layering. The colon contains normal shadowing feces.

Pancreas

The base and limbs of the pancreas are isoechoic to surrounding omental fat. The pancreatic duct and capsular contour are normal. There is no overt evidence of active inflammatory or neoplastic disease.

Free Abdomen

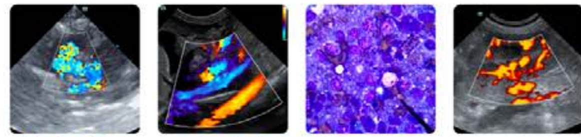
No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- The cardiac findings are consistent with an essentially normal echocardiogram. Any murmur will be considered functional in origin. No cardiac cause of the morbidity is identified.

- The kidneys are relatively normal in size and structure, and cortex:medulla ratio (cortex 1/3 of medulla) is essentially maintained. There is age-related loss of the normal smooth capsular contour and C/M junction definition. The cortices are largely uniform in texture with mild hyperechogenicity expected for this patient’s age. Dystrophic mineralization was noted and appears non-obstructive at this time, with no evidence of pylectasis.

- The small splenic nodule likely represents benign change such as lymphoid hyperplasia or extramedullary hematopoiesis. However, early infiltrative disease such as sarcoma or round



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cell neoplasia can't be definitively excluded.

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory, immune-mediated, metabolic, or endocrine disease. Infiltrative neoplasia or acute hepatitis cannot be ruled out.

- The gallbladder contains echogenic, suspended and dependent unorganized debris. This is not yet to the level of an organized mucocele, however early/developing mucocele cannot be ruled out. This dependent sediment is often an incidental finding or may be associated with concurrent endocrine disease such as hyperadrenocorticism or diabetes mellitus.

- Suspected gastric foreign material with no overt evidence of gastrointestinal mechanical obstruction at this time.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A urinalysis and urine culture via cystocentesis are recommended to evaluate the urinary tract changes for potential urinary tract infection.

Fine needle aspirates of the spleen and liver with cytology are recommended. A coagulation profile and platelet estimate prior to sampling are indicated to ensure the absence of coagulopathy. Occasionally some tissues are poorly exfoliative, or cytology is non-specific, in which case biopsy with histopathology may be required for a definitive diagnosis.

Consider endoscopy versus exploratory laparotomy. Endoscopy may prove challenging, given the amount of gastric material or gastric ingesta present within the fundus in addition to the suspected foreign material.

Additionally, exploratory laparotomy would allow for potential liver and splenic biopsies with histopathology, which would allow for increased opportunity to obtain a diagnosis via sampling.

Cardiac Recommendations:

Given these findings, no cardiac therapy is recommended. There are no cardiac contraindications to fluid therapy or corticosteroid therapy, as indicated for further assessment and treatment. No specific cardiac recheck is recommended unless a murmur or clinical signs of heart disease develop.

Anesthesia considerations:

No special considerations are necessary.

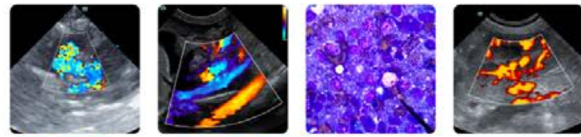
Diet:

No special considerations are necessary. Any high-quality food from Hills, Royal Canin, Science Diet, Eukanuba, Iams, or Purina is reasonable.

Activity:

No special considerations are necessary.

New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



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NJMOBILE SHARI REFFI, CVT 12-15-2025 10:33:29 AM Admin RICHARDSON,GEORGE C11 ABD EL C11-3s
MID GI

NJMOBILE SHARI REFFI, CVT 12-15-2025 10:28:54 AM Admin RICHARDSON,GEORGE C11 ABD EL C11-3s
L Spleen
1 Dist 0.31 cm
2 Dist 0.49 cm

NJMOBILE SHARI REFFI, CVT 12-15-2025 10:28:35 AM Admin RICHARDSON,GEORGE C11 ABD EL C11-3s
LK
1 Dist 6.02 cm

NJMOBILE SHARI REFFI, CVT 12-15-2025 10:15:39 AM Admin RICHARDSON,GEORGE CARD SP5 EL SP5-1s

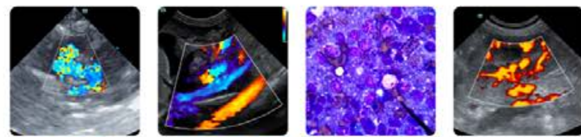
1	IVSd	0.93 cm
	LVIDd	3.49 cm
	LVPWd	0.88 cm
	EDV(Teich)	50.43 ml
2	IVSs	1.32 cm
	LVIDs	2.14 cm
	LVPWs	1.29 cm
	ESV(Teich)	15.14 ml
	SV(Teich)	35.29 ml
	EF(Teich)	69.97 %
	FS	38.58 %
3	HR	131(2) bpm
	CO(Teich)	4.622 L/min

NJMOBILE SHARI REFFI, CVT 12-15-2025 10:27:36 AM Admin RICHARDSON,GEORGE C11 ABD EL C11-3s

NJMOBILE SHARI REFFI, CVT 12-15-2025 10:29:49 AM Admin RICHARDSON,GEORGE C11 ABD EL C11-3s
L
Shadowing material in stomach

NJMOBILE SHARI REFFI, CVT 12-15-2025 10:30:40 AM Admin RICHARDSON,GEORGE C11 ABD EL C11-3s
SUBXIPHOID

NJMOBILE SHARI REFFI, CVT 12-15-2025 10:30:49 AM Admin RICHARDSON,GEORGE C11 ABD EL C11-3s
SUBXIPHOID



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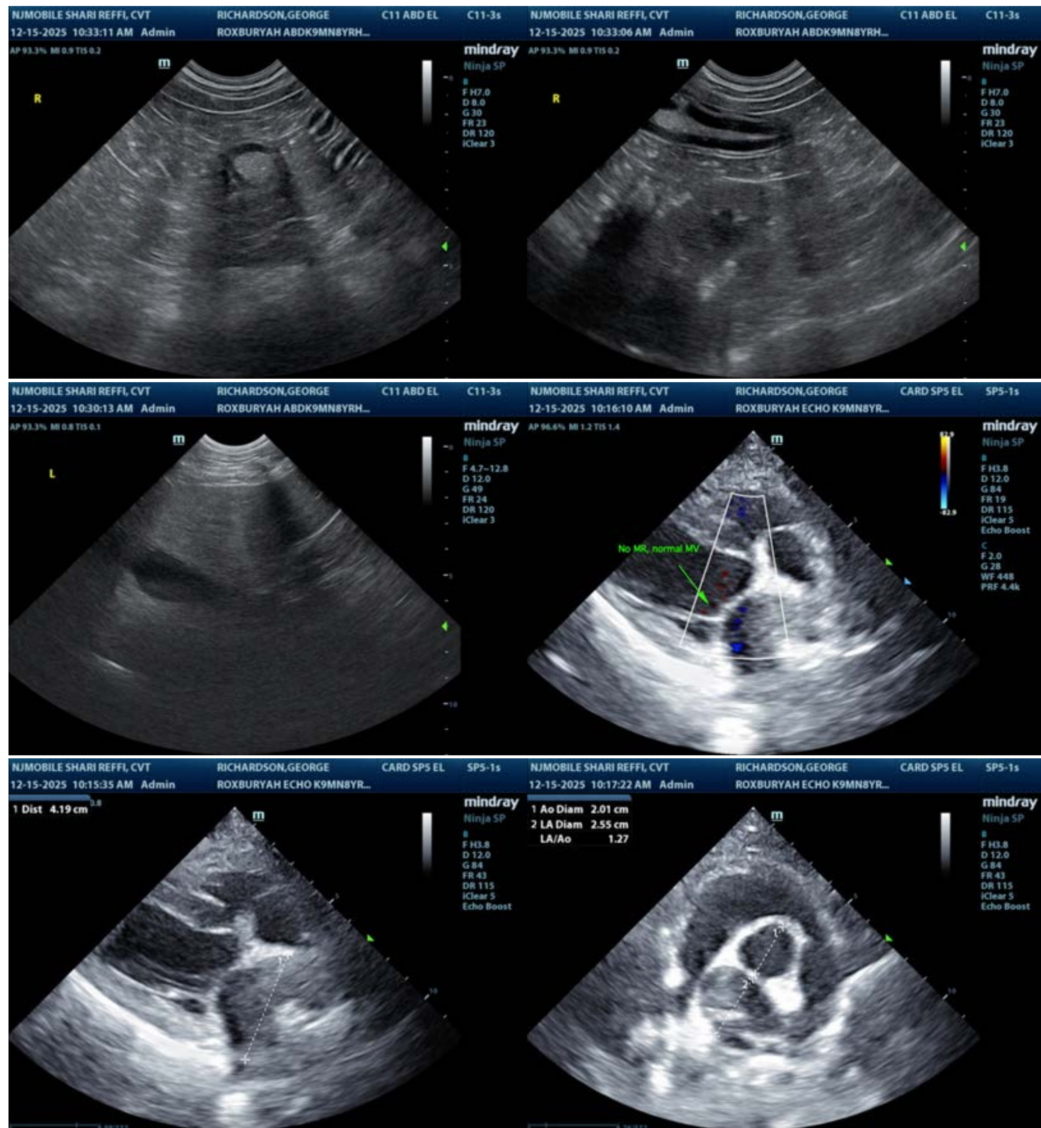

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Brad Harris, DVM, DACVECC, DACVIM (cardiology)

info@SonoPath.com