



## PATIENT

Nemo Santino

## SPECIES

Canine

## BREED

DSH

## SEX

Neutered Male

## AGE

7

## WEIGHT

15.3

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Jenn

## HOSPITAL NAME

Rockaway Animal  
Hospital

## REFERRING VET

Dr. Maniar

## INVOICE

75236

## DATE

5/18/26

## PRESENTING CLINICAL SIGNS

ADR anorexia.

Abnormal PE/Chem/CBC/UA Results: Abnormal ProBNP TP 9.0 Glob 5.5

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	15.3	NM	0.5	1.4	0.5	48	81
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	--	1.2	1.2		--	0.6	NM

Adapted from June Boon, Veterinary Echocardiography, 1998  
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

### Cardiac Presentation

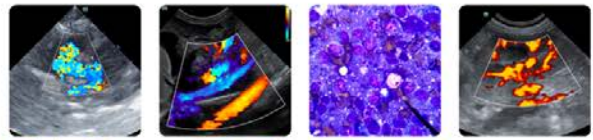
The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. 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 and angles 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 and kinetics. 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 or extra cardiac pathology in the visible planes. The cranial **mediastinum** and **pericardial** regions were free of masses in the visible window.

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



<b>PATIENT</b>	The area of the aortic trifurcation was free of pathology.
Nemo Santino	Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. Left kidney measured 4.0 cm. Right kidney measured 4.5 cm.
<b>SPECIES</b>	
Canine	<b>Adrenal Glands</b>
<b>BREED</b>	No obvious pathology in the areas of the left and right adrenal glands, although not definitively visualized.
DSH	<b>Spleen</b>
<b>SEX</b>	The spleen was borderline enlarged (1.1 cm in width at the level of the mid spleen) and 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.
Neutered Male	<b>Liver</b>
<b>AGE</b>	The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
7	<b>Gastrointestinal</b>
<b>WEIGHT</b>	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.
15.3	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.
<b>INTERPRETED BY</b>	Normal visible colon wall layers were present with apparent formed feces in lumen.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<b>Pancreas</b>
<b>IMAGING PERFORMED BY</b>	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.
Jenn	<b>Free Abdomen</b>
<b>HOSPITAL NAME</b>	No overt lymphadenopathy or peritoneal effusion was present.
Rockaway Animal Hospital	<b>ULTRASONOGRAPHIC FINDINGS</b>
<b>REFERRING VET</b>	<ul style="list-style-type: none"> <li>• Normal cardiac structure/function.</li> <li>• Overall sonographically unremarkable abdomen.</li> <li>• Non-specific borderline splenomegaly – possibly due to sedation if applicable, incidental to borderline hyperplasia, hematopoiesis, inflammation. Occult splenic neoplasia thought less likely.</li> </ul>
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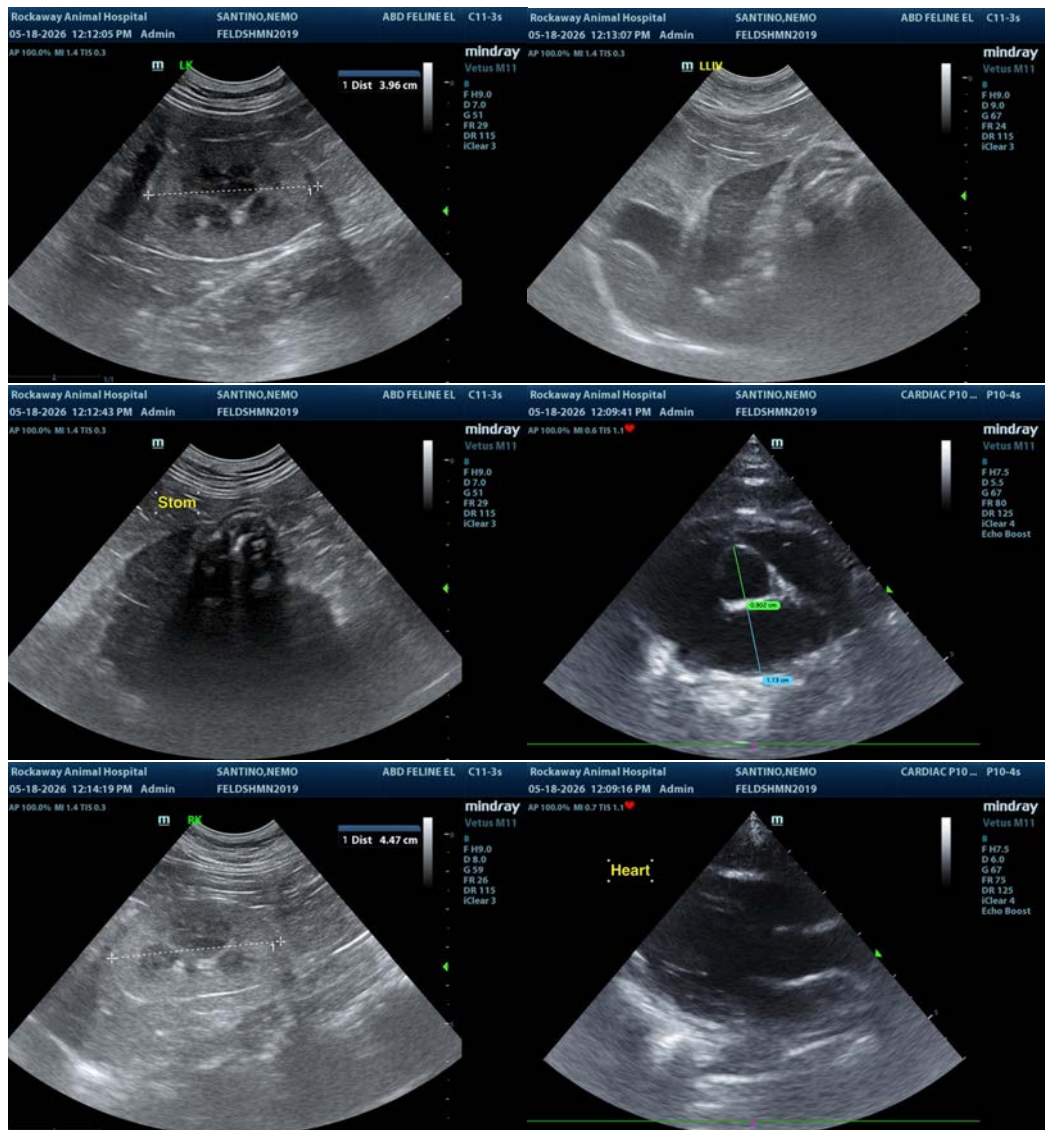
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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Aside from the borderline splenomegaly, no evidence of cardiac or abdominal visceral pathology as an obvious contributing factor to the patient's clinical signs. If patient was non-sedated, and assuming normal clotting status, splenic FNA cytology using 25-gauge needle warranted to assess for occult disease in conjunction with mild hyperglobulinemia. 3-view chest radiographs and a GI panel to include PLI, TLI, cobalamin and folate to assess for additional occult disease is recommended. Supportive care indicated pending additional diagnostics.





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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