



## PATIENT PRESENTING CLINICAL SIGNS

Maya Thanos History: hacking/coughing stomach distention

## SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

Feline

BREED

DSH

SEX

Spayed Female

AGE

7

WEIGHT

8.7

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	--	NM	0.46	1.47	0.46	50	85
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	--	1.1	1.2	1.1	0.86	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 3 separate 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 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.

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

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Jenn

## HOSPITAL NAME

Rockaway AH

## REFERRING VET

Dr. Maniar

## INVOICE

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## DATE

2/2/23



<b>PATIENT</b>	less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 3.7 cm in length. The right kidney measured 3.8 cm in length.
Maya Thanos	
<b>SPECIES</b>	<b>Adrenal Glands</b>
Feline	No overt pathology in the area of the left or right adrenal glands.
<b>BREED</b>	<b>Spleen</b>
DSH	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.
<b>SEX</b>	<b>Liver</b>
Spayed Female	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.
<b>AGE</b>	<b>Gastrointestinal</b>
7	The stomach presented intact wall layering with a normal wall layer ratio. Mild nonshadowing pyloric ingesta/chyme was present, along with mild luminal gas. No overt hairball density was noted.
<b>WEIGHT</b>	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.
8.7	The large intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the large intestine was empty with no signs of ileus, obstruction or foreign material. Normal visible colon wall layers were present with apparent formed feces in lumen.
<b>INTERPRETED BY</b>	<b>Pancreas</b>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	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.
<b>IMAGING PERFORMED BY</b>	<b>Free Abdomen</b>
Jenn	No omental masses, lymphadenopathy or peritoneal effusion was present.
<b>HOSPITAL NAME</b>	<b>ULTRASONOGRAPHIC FINDINGS</b>
Rockaway AH	<ul style="list-style-type: none"> <li>• Normal echocardiogram</li> <li>• Mild retained gastric ingesta and luminal gas, sonographically unremarkable small bowel</li> <li>• Otherwise, sonographically normal abdomen</li> </ul>
<b>REFERRING VET</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
Dr. Maniar	No sonographic evidence of structural/function cardiomyopathy or significant visceral pathology. The coughing in this patient is noncardiogenic. No evidence of gastric or gastrointestinal mechanical obstruction. Possible small nonobstructive intermixed gastric hairball density cannot be definitively excluded, yet no evidence of mechanical pyloric outflow obstruction. Empirical therapy for
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**PATIENT**

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gastritis/esophagitis with hairball therapy, if clinically indicated, and assessment of clinical response would be reasonable. As needed respiratory support is recommended.

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**HOSPITAL NAME**

Rockway AH

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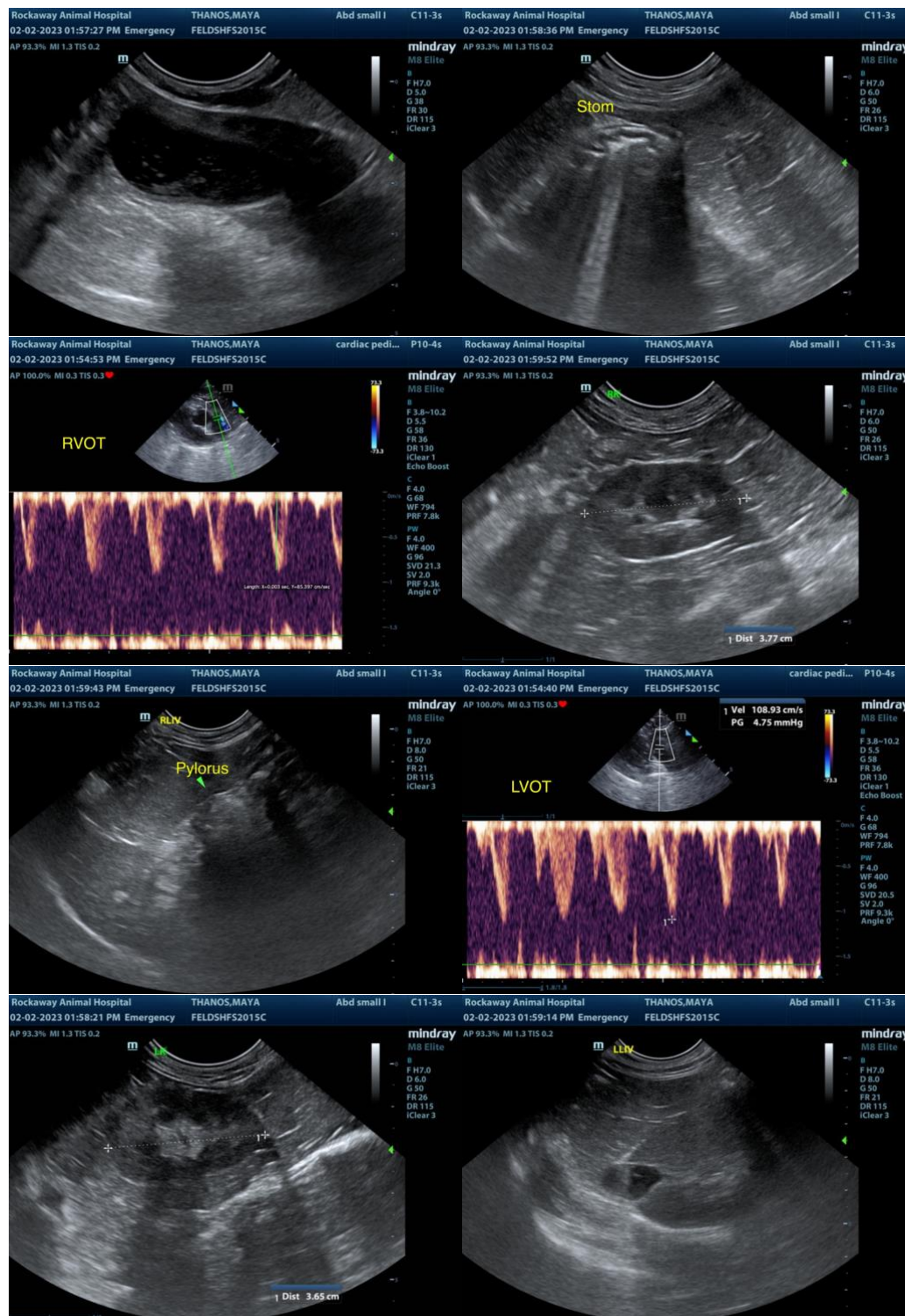
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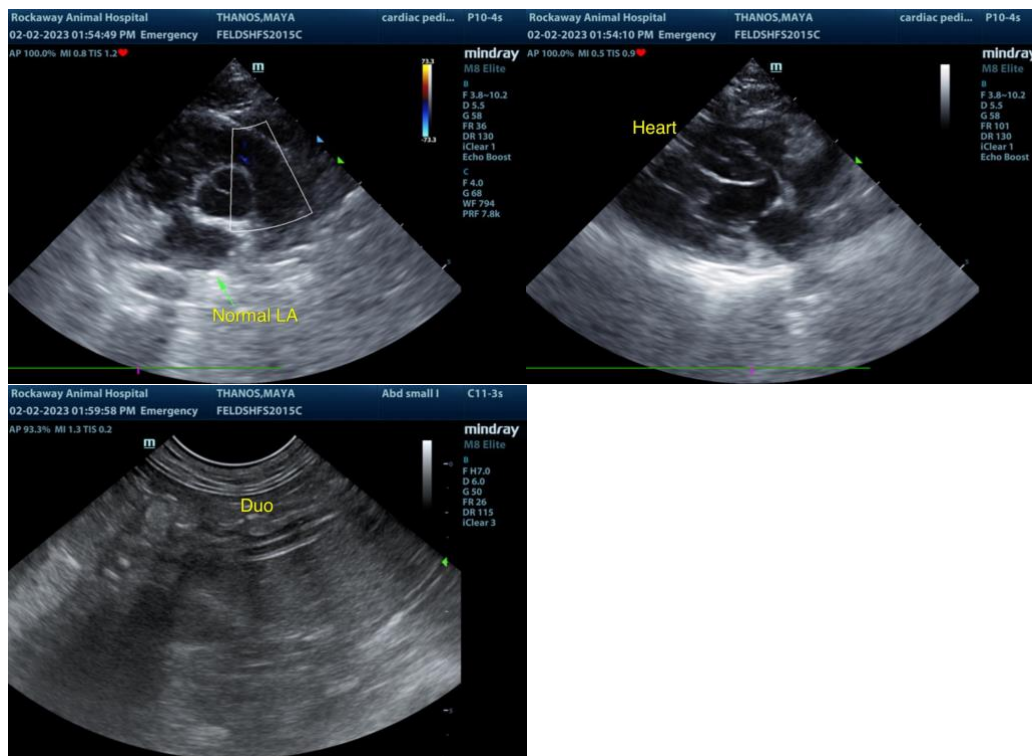
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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