



**PATIENT PRESENTING CLINICAL SIGNS**

**Bone Oneill** History: Vomiting and lethargic yesterday. Did not eat today.

**SPECIES** Meds: Cerenia

Feline Abnormal PE/Chem/CBC/UA Results: Decr. Neut Elev. GGT and Bili

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

DSH

**SEX**

Male

**AGE**

4 mon

**WEIGHT**

5.5 lbs

**INTERPRETED BY**

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

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	--	270	0.29	1.55	0.28	50	82
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	--	1.3	1.3		1.0	1.4	--
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							

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Marsh AH

**REFERRING VET**

Dr. Armani

**INVOICE**

12890

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12/4/25

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 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 to a depth of 1.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or



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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 was 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. The left kidney measured 3.2 cm in length. The right kidney measured 3.6 cm in length.

**Adrenal Glands**

No obvious pathology in the area of the left and right adrenal glands.

**Spleen**

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.

**Liver**

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 proximal common bile duct was mildly dilated and tortuous without overt post hepatic obstruction.

**Gastrointestinal**

The visible gastric walls exhibited intact wall layering without mural pathology or hypertrophy. The stomach contained progressively shadowing ingesta and gas in the stomach body. Variably echogenic, non-shadowing ingesta in the pylorus and pyloric outflow. No evidence of obstructive pyloric mural pathology. Pylorus wall measured 0.24 cm.

The small intestine presented intact mildly thickened mucosa and muscularis layer. Concurrent segmental, generally mild, non-shadowing intestinal ingesta without obstructive pattern to the level of the colon. Duodenum wall measured 0.28 cm and jejunum wall measured 0.30 cm.

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

**Pancreas**

The area of the pancreas was sonographically normal.

**Free Abdomen**

Intermittent, mildly prominent to enlarged mesenteric nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of lymph node measured 0.9 cm in diameter. No evidence of peritoneal effusion was present.



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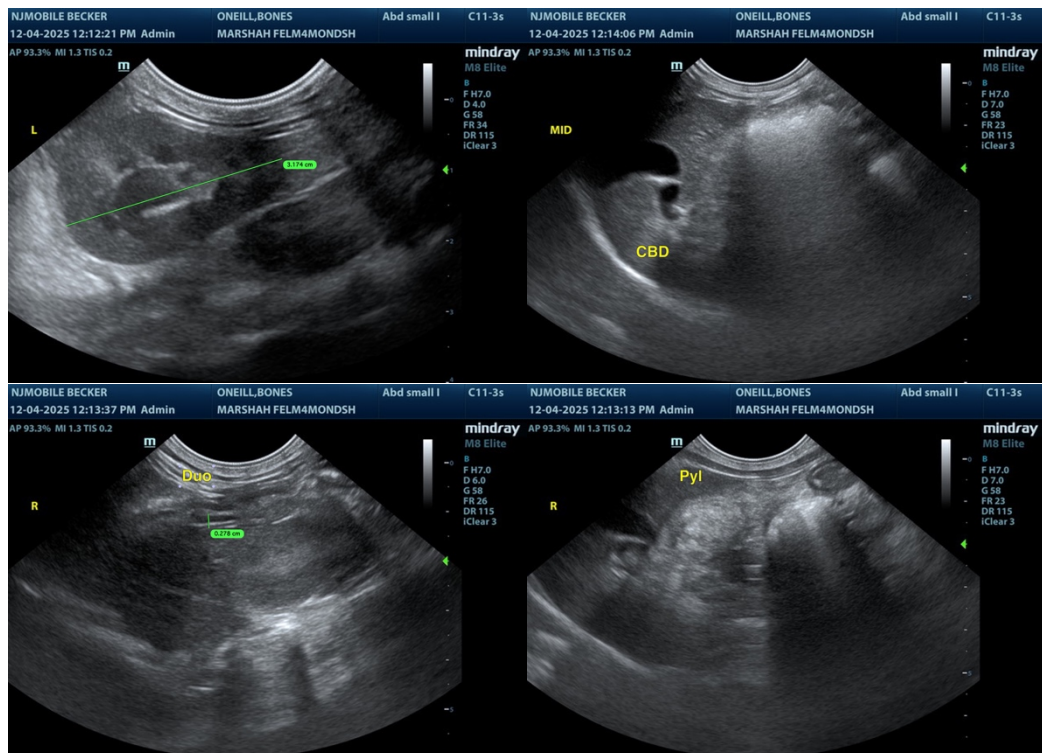
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**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram
- Non-shadowing to progressively shadowing gastric ingesta – patent pylorus
- Intact thickened small intestine with concurrent segmental non-shadowing ingesta
- Sonographically normal liver, gallbladder, mild non-obstructive proximal common bile duct dilation – possible mild cholangitis
- Intermittent, mild subjective benign mesenteric lymphadenopathy

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Nonspecific enteropathy with consideration including inflammatory or infectious etiology, favored potential for early to emerging infiltrative intestinal disease, i.e. neoplasia or FIP not definitively excluded. No obvious evidence of mechanical gastrointestinal obstruction. Potential for intermixed ingesta and hairball type density in the stomach in conjunction with gastrointestinal signs and reported NPO possible. Documented fast with sonographic reassessment or monitoring of gastrointestinal motility or evidence of persistent gastrointestinal ingesta is recommended. If persistent gastric ingesta, exploratory laparotomy with gastrointestinal biopsies considered essential despite exploratory findings may be indicated.





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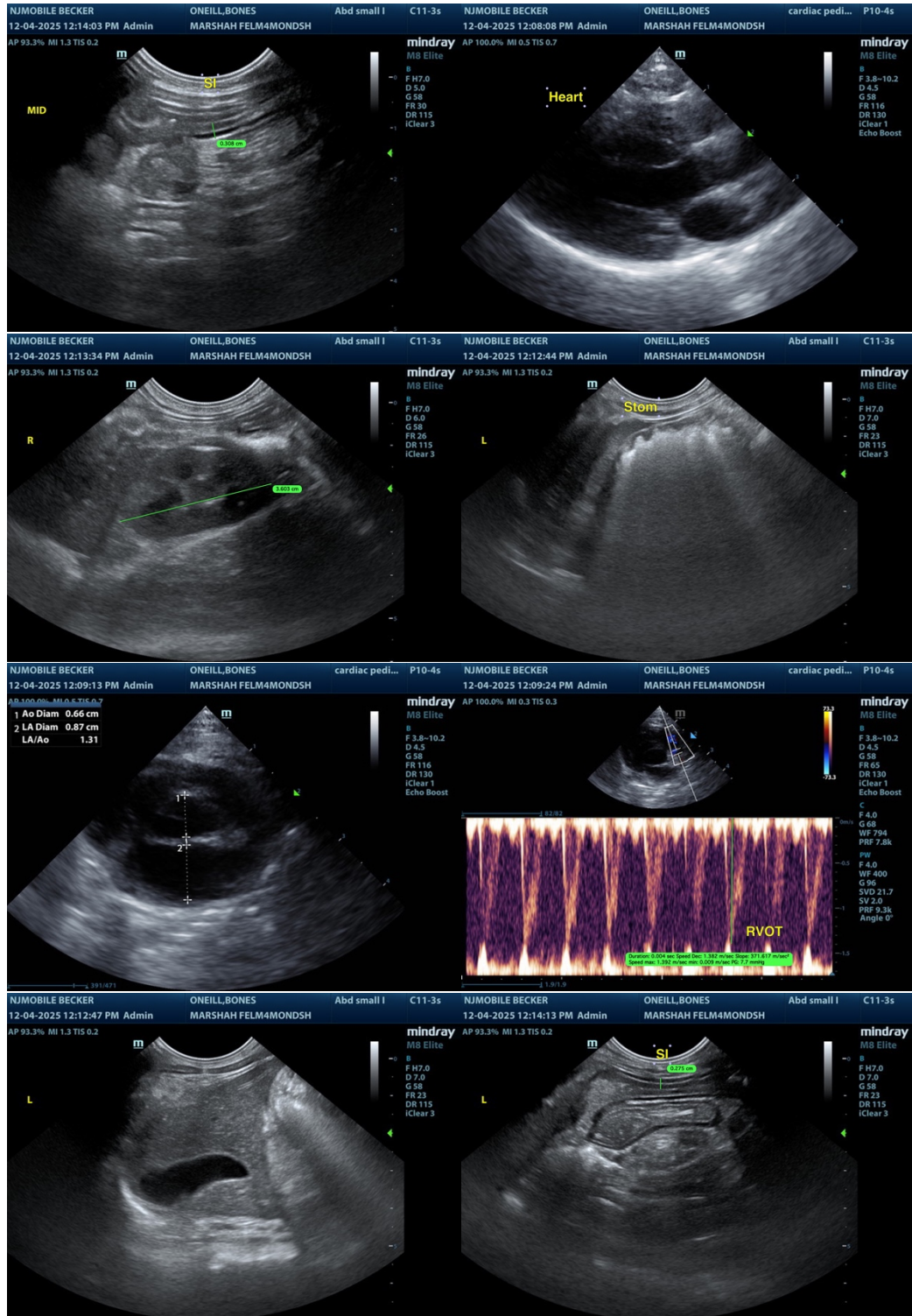
Dr. Armani

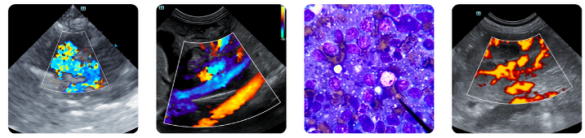
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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Feline

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.

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