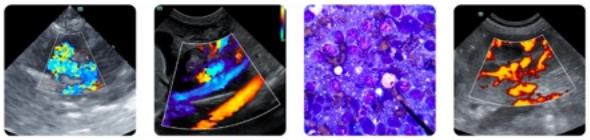


PATIENT

Apollo Hoffman

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Neutered male

AGE

13 years

WEIGHT

12.6 lbs

INTERPRETED BY

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

IMAGING PERFORMED BY

Tiffany Brady, DVM

HOSPITAL NAME

Shiloh VH

REFERRING VET

Dr. Owings

INVOICE

68296

DATE

11/4/25

PRESENTING CLINICAL SIGNS

History: Seen 10/16 for increased vomiting and weight loss. Noted new 3/6 heart murmur CBC/Chem/T4/UA WNL BNP WNL BP WNL (125 mmHg avg) Radiographs unremarkable (to be emailed)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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. A mild amount of suspended, echogenic debris that is mobile and non-shadowing. There is no overt shadowing urolithiasis noted. The ureteral papillae appear normal. There is no evidence of inflammatory, infiltrative, or neoplastic disease.

The kidneys are normal in size and structure. The cortices are mildly hyperechoic with a hyperechoic corticomedullary rim. The cortex to medulla ratio is appropriate and there is no overt pyelectasia or pelvic dilation. The capsules are mildly irregular bilaterally. The left kidney measured 3.94 cm and the right kidney measured 4.37 cm.

Adrenal Glands

The adrenal glands are not readily visualized.

Spleen

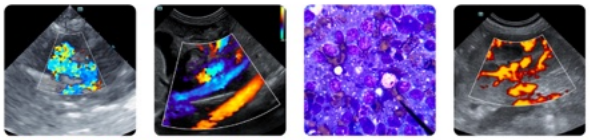
The spleen is smooth with homogeneous parenchyma and hyperechoic to liver and renal cortical parenchyma. The capsule is without noticeable irregularity or deformation. The splenic vasculature is normal without signs of congestion, spontaneous echo contrast, or thrombosis. No evidence of acute or chronic inflammatory, neoplastic, or infarct are documented. The spleen measured 0.96 cm at the hilus.

Liver

The liver is subjectively normal liver size, contour, and structure. Parenchymal echogenicity is naturally coarse and hypoechoic to the spleen. Vasculature is within normal limits with no evidence of congestion. The gallbladder has thin walls with contains anechoic bile. There is no evidence of intra- or extra-hepatic biliary dilation. The cystic and common bile ducts were normal. No hepatic lymphadenopathy is documented. There is no overt structural evidence of inflammatory, infiltrative or regenerative pathology evident.

Gastrointestinal

The stomach and intestines are free of stasis and peristaltic activity, with no significant dilation noted. There is normal wall thickness and acceptable curvilinear mural detail. The pyloric-duodenal junction and ileocecocolic junction are patent, and the colon contains normal shadowing feces. There is no



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evidence of shadowing obstructive material or overt infiltrative disease noted. No associated abnormal lymphatic activity is documented.

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

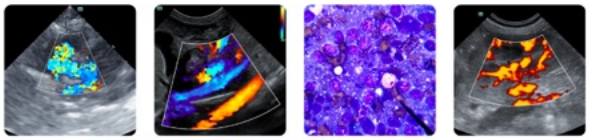
There is no evidence of abdominal lymphadenopathy. No free fluid was noted.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The left atrium is normal to small in dimension. There are no distinct left atrial thrombi/clots or spontaneous echo contrast appreciated. The left ventricle is normal to small in dimension with normal wall thickness, and no evidence of restriction. Left ventricular systolic function is normal, with adequate contractility. The right atrium and ventricle are subjectively normal in dimension and systolic function. The anterior and posterior mitral and tricuspid valve leaflets presented normal linear structure, extension in systole, and union in diastole without regurgitation. There is no evidence of systolic anterior mitral valve motion documented. The left ventricular outflow tract demonstrated normal laminar flow and subjective structural valvular integrity. The visible aorta is unremarkable. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and appropriate diameter and distensibility. There is no evidence of pulmonary hypertension documented. There is no visible pericardial, pleural, or free peritoneal fluid noted.

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	5.73	NM	0.5	1.36	0.55	46	NM
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	NM	1.36	1.2		NM	0.4	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



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ULTRASONOGRAPHIC FINDINGS

The urinary bladder contains echogenic, suspended debris contrasted with anechoic urine. This is often related to urinary tract infection but may represent exfoliated debris or sterile inflammation.

There is a hyperechoic renal corticomedullary band present, with a uniform corticomedullary ratio. This is most consistent with a medullary rim sign. There are mild degenerative renal changes noted, with a uniform capsular contour. This is an idiopathic finding, yet at times can be related to FIP or lymphoma in cats.

The absence of significant gastrointestinal or pancreatic abnormalities does not exclude an acute gastroenteritis or pancreatitis as an underlying cause of the clinical signs. However, given the more persistent or chronic history signs an underlying early infiltrative disease such as chronic enteropathy should also be considered.

These findings are consistent with an essentially normal echocardiogram. Any murmur auscultated will be considered functional in origin.

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.

A gastrointestinal panel (TLI, PLI, B12, folate) via Texas A&M gastrointestinal laboratory is indicated to further evaluate for potential chronic enteropathy. Ultimately, gastrointestinal biopsies may be required for a definitive diagnosis.

Given these findings, no cardiac therapy is recommended. There are no cardiac contraindications to corticosteroids or fluid therapy as indicated for further treatment. No specific recheck echocardiogram is recommended.

Anesthesia considerations:
No special cardiac 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.

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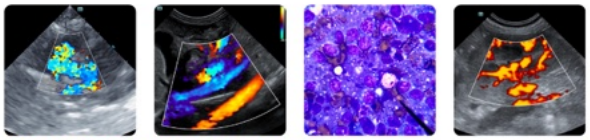

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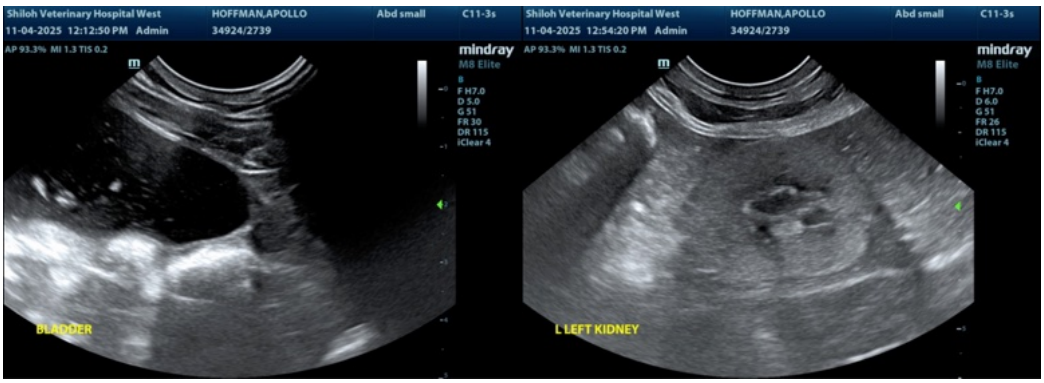

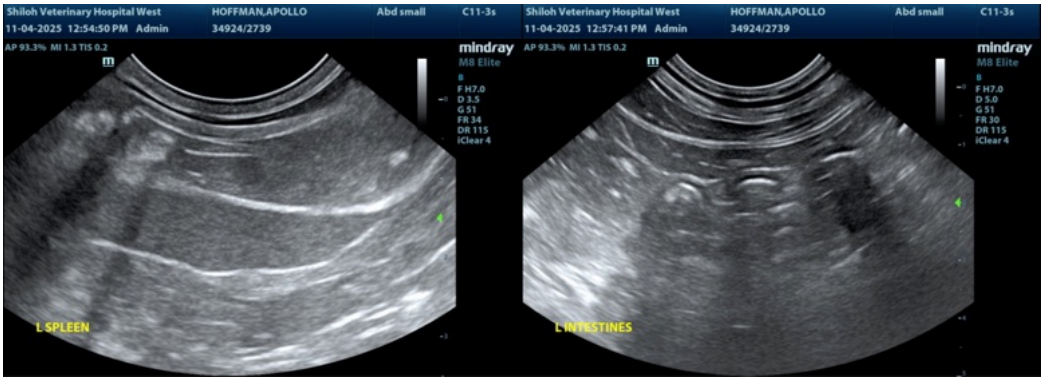

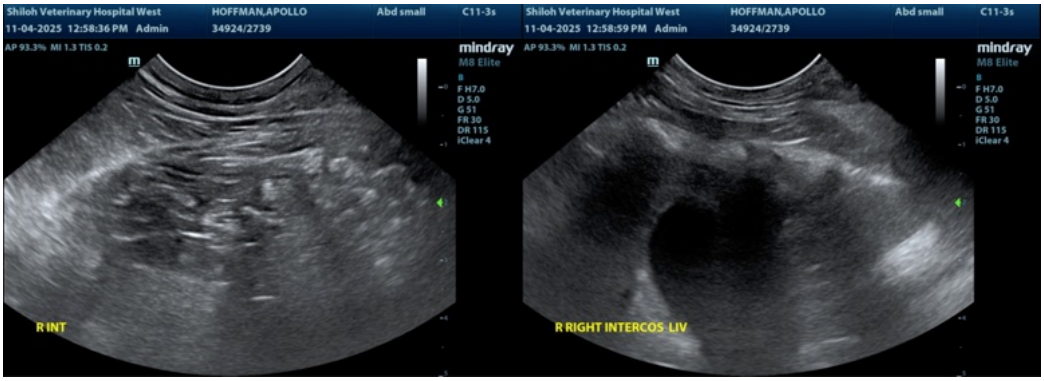

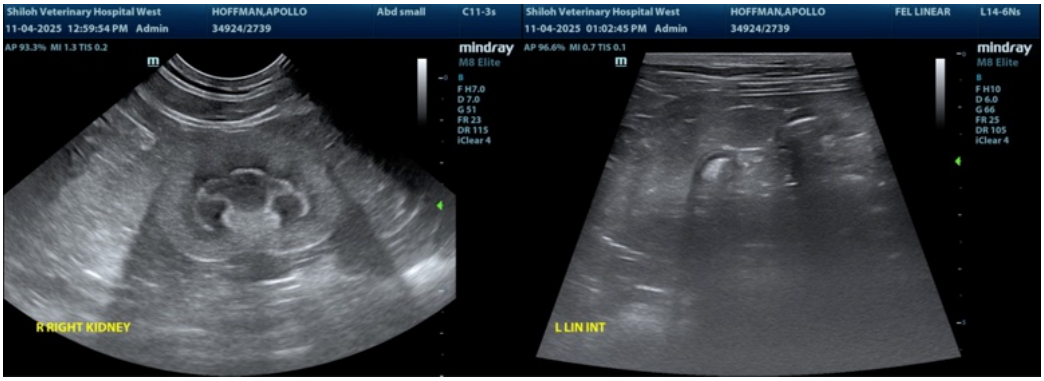

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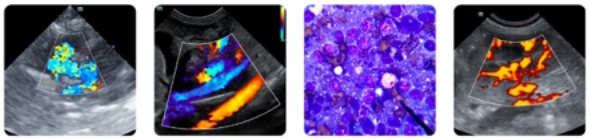

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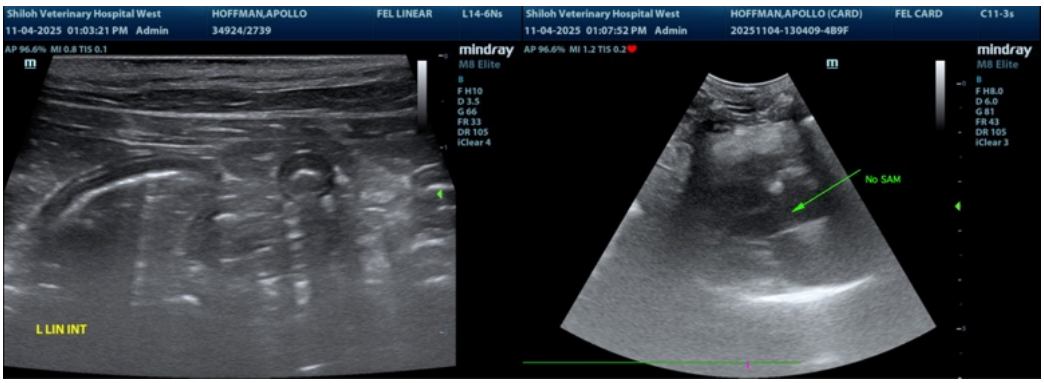

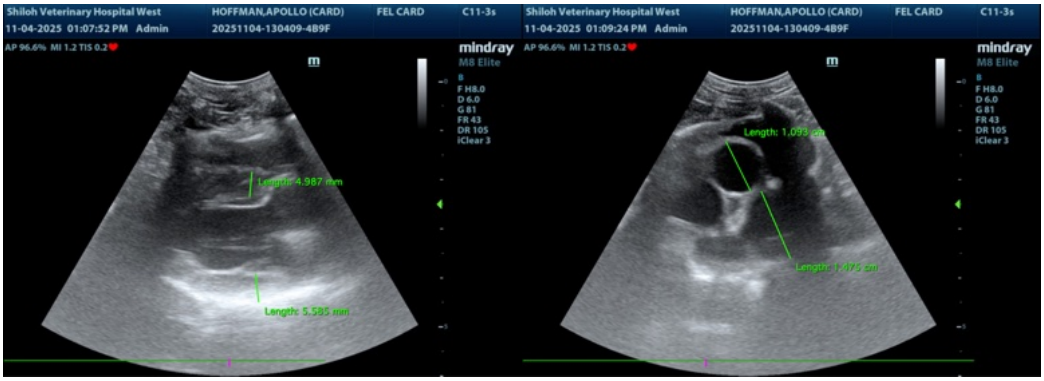

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

info@SonoPath.com