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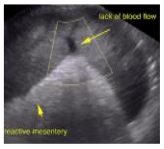
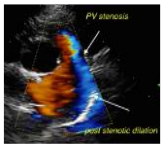
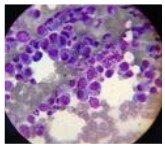
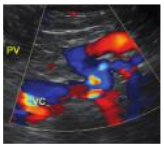




SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Oscar Fox

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

15 years

WEIGHT

15.15 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Marsh

REFERRING VET

Dr. Milwicki

INVOICE

14844

DATE

8/17/23

PRESENTING CLINICAL SIGNS

Hx of chronic enteritis. Meds: Budesonide, Tylan, Solensia Inj.
Abnormal PE/Chem/CBC/UA Results: wnl

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		173	0.51	1.68	0.45	47	81
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	1.3	1.3	1.3		1.0	0.65	NM

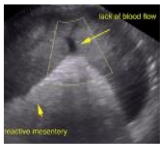
Adapted from June Boon,Veterinary Echocardiography,1998
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

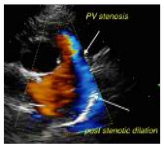
Cardiac Presentation

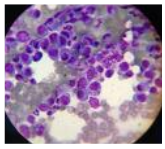
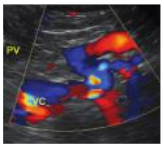
The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented mild thickening with previously noted static mild MR on Doppler. The **left ventricular** septum and free wall revealed normal thicknesses, reduced contractility and mildly reduced left ventricular volume with subjective reduced diastolic filling, yet some myocardial remodeling of the septum and free wall were present. This does not appear to be a functional issue at this point and consistent with some level of probable mild **myocardial fibrosis**, which is age-related change. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Normal measured LVOT velocity was noted. The **right atrium** and auricle revealed increased size and normal 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). Normal measured RVOT velocity was noted. 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. Primarily anechoic urine was present in the lumen. Mild particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The





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ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

No evidence of pathology in the area of the aortic trifurcation.

Normal renal size with asymmetrical margination were present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 4.1 cm in length. The right kidney measured 4.0 cm in length.

Adrenal Glands

The left and right adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.4 cm width and the right adrenal gland measured 0.42 cm width.

Spleen

The spleen was normal in size measuring 1.0 cm width at the level of the mid spleen. A symmetrical capsule contour was present with primarily a finely textured and homogenous parenchyma exhibiting previously noted static nondisruptive hyperechoic intraparenchymal nodules. An example of a nodule measured 0.66 cm.

Liver/ Gallbladder

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 containing anechoic content with mild, hyperechoic, congealed gallbladder sludge. The cystic and common bile ducts were normal. No evidence of inflammatory criteria was noted.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild, nonshadowing ingesta, sonographically consistent with food without signs of obstruction or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Segmental to generalized nonshadowing similar appearing ingesta / chyme was present without evidence of obstruction or foreign material. The duodenum wall measured 0.23 cm width. The jejunum wall measured 0.21 cm width. The ileocolic wall measured 0.30 cm width.

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

Pancreas

The left pancreatic limb was normal in size and contour with minor heterogeneous, hypoechoic parenchyma with mild left limb pancreatic duct dilation.

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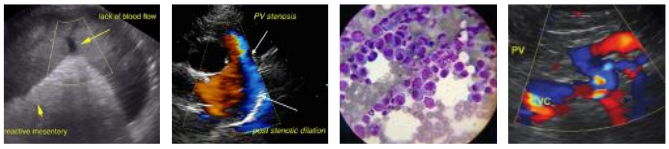

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Free Abdomen

Intermittent mid-abdominal mildly prominent to irregular mildly heterogeneous mesenteric lymph nodes were present with subtle peri lymphatic hyperechoic omentum. An example measured 1.8 cm diameter. There was no evidence of omental masses or peritoneal free fluid.

ULTRASONOGRAPHIC FINDINGS

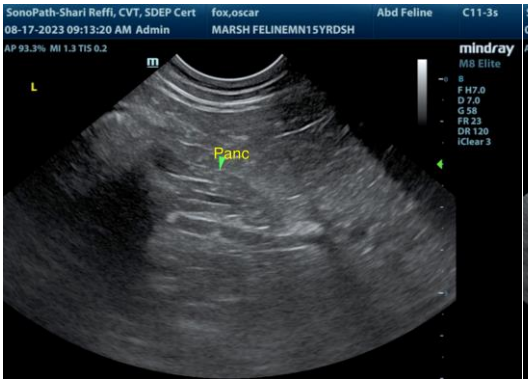
- Normal echocardiogram with mild LV myocardial remodeling, normal LA
- Mild urinary bladder sediment
- Static chronic renal changes
- Structurally unremarkable gastrointestinal tract with gastrointestinal ingesta
- Static splenic nodules - consistent with benign nodule criteria i.e., myelolipoma
- Mild gallbladder sediment
- Mild heterogeneous left pancreas with mild pancreatic duct dilation - possible mild chronic pancreatitis
- Mid-abdominal intermittent sonographically benign / chronically reactive mesenteric lymph nodes - not consistent with neoplastic lymphatic criteria

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, there was no evidence of significant visceral or cardiac pathology with largely static previously noted sonographic findings.

The noted mesenteric lymph nodes are suggestive of chronic hyperplasia reactivity or possible mild chronic lymphadenitis, likely secondary to chronic enteropathy.

Potential for chronic pancreatitis may be suspected if evidence of cranial abdominal or subxiphoid discomfort on palpation. Correlation with a Spec fPL or recheck GI panel may be considered.



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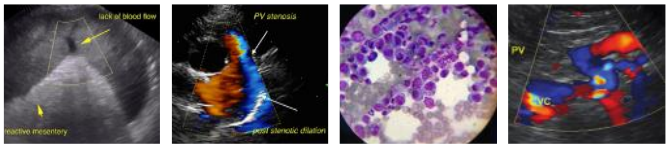

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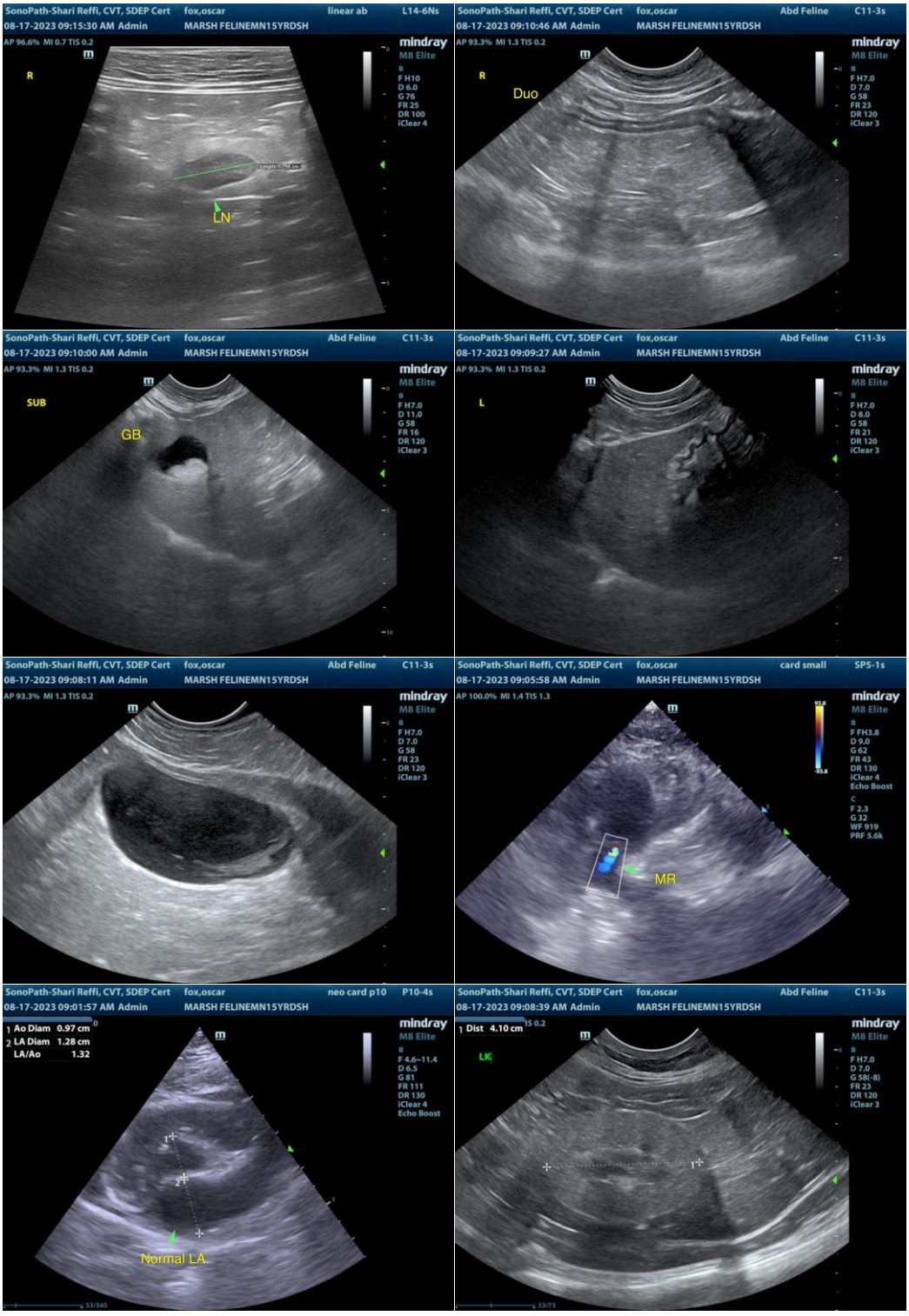

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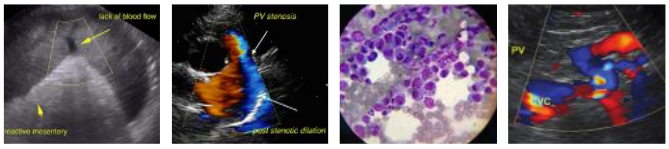

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
info@sonopath.com