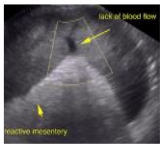
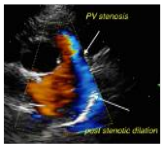
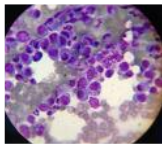
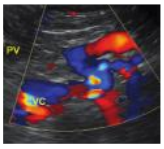
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Oscar Fox

SPECIES
Feline

BREED
DSH

SEX
MN

AGE
14 years

WEIGHT
15 lbs. 13 oz

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

IMAGING PERFORMED BY
Kelly Vazquez

HOSPITAL NAME
Marsh Hospital for Animals

REFERRING VET
Dr. Milwicki

INVOICE
14027

DATE
6/7/22

PRESENTING CLINICAL SIGNS

Patient presents for concern of weight loss. Current meds: Metacam.
Abnormal PE/Chem/CBC/UA Results: CBC/Chem: WNL. USG: 1.017.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

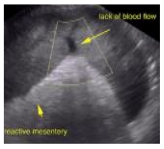
FELINE CARDIAC PARAMETERS	**BODY WEIGHT** (kg)	**HR** (BPM)	**IVSd** (cm)	**LVIDd** (cm)	**LVWd** (cm)	**FS** (%)	**EF** (%)
NORMAL PARAMETER	------	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		125	0.40	1.6	0.4	20	85
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE** (Sisson)	**LA** 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	1.35	1.1	1.1		1.0	0.8	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							

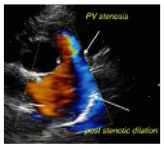
Cardiac Presentation

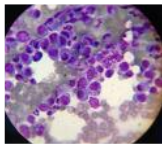
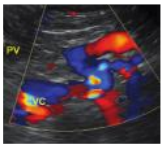
The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal thicknesses with linear contour and was not dilated 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 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 was noted.





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

PATIENT

Oscar Fox

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

14 years

WEIGHT

15 lbs. 13 oz

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Marsh Hospital for Animals

REFERRING VET

Dr. Milwicki

INVOICE

14027

DATE

6/7/22

The area of the aortic trifurcation was free of pathology.

Normal renal size with asymmetrical margination present in both kidneys. The renal cortex presented uniformly increased 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 4.5 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.46 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.43 cm width.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multiple, nondisruptive, well-demarcated, spherical, hyperechoic nodules were present throughout the cranial to caudal 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 or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas. An example of a splenic nodule measured 0.58 cm in diameter.

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 with sonographically normal gallbladder walls without evidence of inflammatory changes or criteria. Primarily anechoic content was present in the gallbladder with mild to moderate hyperechoic yet nonmineralized, nonorganized luminal debris. The common bile duct was sonographically unremarkable. No evidence of post-hepatic stasis or obstruction was noted.

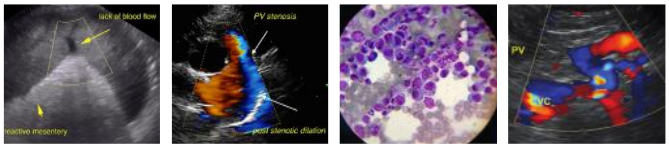
Gastrointestinal

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. The gastric body wall width measured 0.25 cm.

The small intestine presented intact wall layering and primarily maintained a 1:3 muscularis/mucosa ratio with no evidence of loss of intestinal wall layering or intestinal masses. No overt evidence of altered wall layer ratio was noted. The duodenum wall width measured 0.29 cm. The jejunum wall width measured 0.29 cm.

The colon exhibited sonographically unremarkable wall layering with segmental formed to nonformed potential liquid luminal feces.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Oscar Fox

SPECIES
Feline

BREED
DSH

SEX
MN

AGE
14 years

WEIGHT
15 lbs. 13 oz

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

IMAGING PERFORMED BY
Kelly Vazquez

HOSPITAL NAME
Marsh Hospital for Animals

REFERRING VET
Dr. Milwicki

INVOICE
14027

DATE
6/7/22

Pancreas

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 were evident.

Free Abdomen

Multiple, variably echogenic to prominent jejunocolic lymph nodes exhibiting borderline abnormal width: length ratio (approximately 0.5) was present. Evidence of mild perilymphatic reactive mesentery was noted. An example of a jejunal lymph node measured 1.3 cm x 0.75 cm. An example of a colic lymph node measured 1.5 cm x 0.72 cm. No evidence of peritoneal free fluid was noted.

ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram
- Nonspecific chronic renal changes exhibiting mild uniform cortical hypertrophy - subjective chronic bilateral Interstitial nephrosis / nephritis renal pattern
- Probable benign splenic nodules - consistent with probable benign myelolipomas
- Overtly normal gastrointestinal tract and colon with segmental nonformed feces
- Multiple nonspecific variably echogenic to prominent jejunocolic lymph nodes with concurrent mild perilymphatic reactive mesentery - lymphoid hyperplasia or reactive lymphadenitis potentially owing to structurally insignificant enteropathy, potential for emerging neoplastic criteria considered less likely yet cannot be definitively excluded

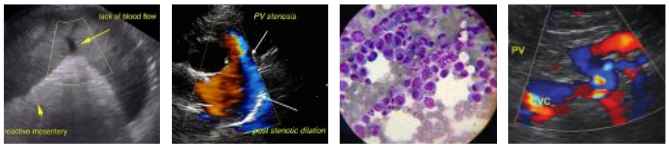
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

Although no sonographic evidence of overt gastrointestinal mural changes or pathology was noted, the possibility of structurally insignificant gastrointestinal disease, given the patient's weight loss and concurrent presence of jejunocolic lymphadenopathy could be possible. Further assessment may Include a GI panel to include PLI/TLI/Cobalamin/Folate, three view chest radiographs to rule out occult thoracic pathology as a contributing factor, and/or if accessible ultrasound-guided FNA of a jejunocolic lymph node for screening cytology.

Pending additional diagnostics, as-needed supportive care, monitoring for evidence of persistent / progressive weight loss, and possible recheck sonogram to assess for evidence of progressive gastrointestinal mural changes or lymphadenopathy are suggested.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Oscar Fox

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

14 years

WEIGHT

15 lbs. 13 oz

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Marsh Hospital for Animals

REFERRING VET

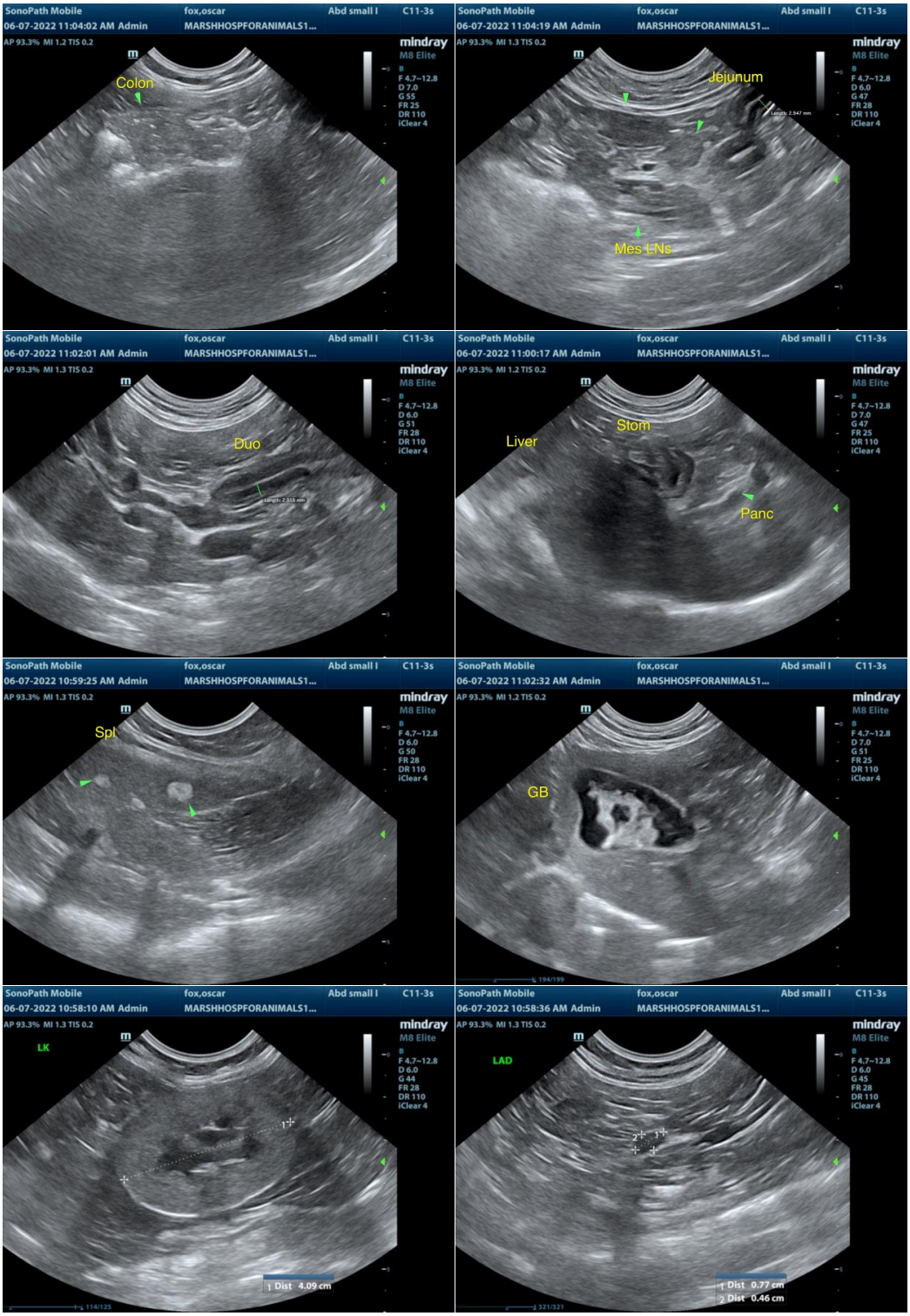
Dr. Milwicki

INVOICE

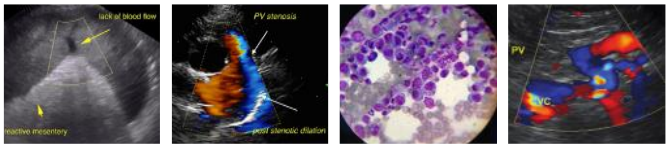
14027

DATE

6/7/22



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Oscar Fox

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

14 years

WEIGHT

15 lbs. 13 oz

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Marsh Hospital for Animals

REFERRING VET

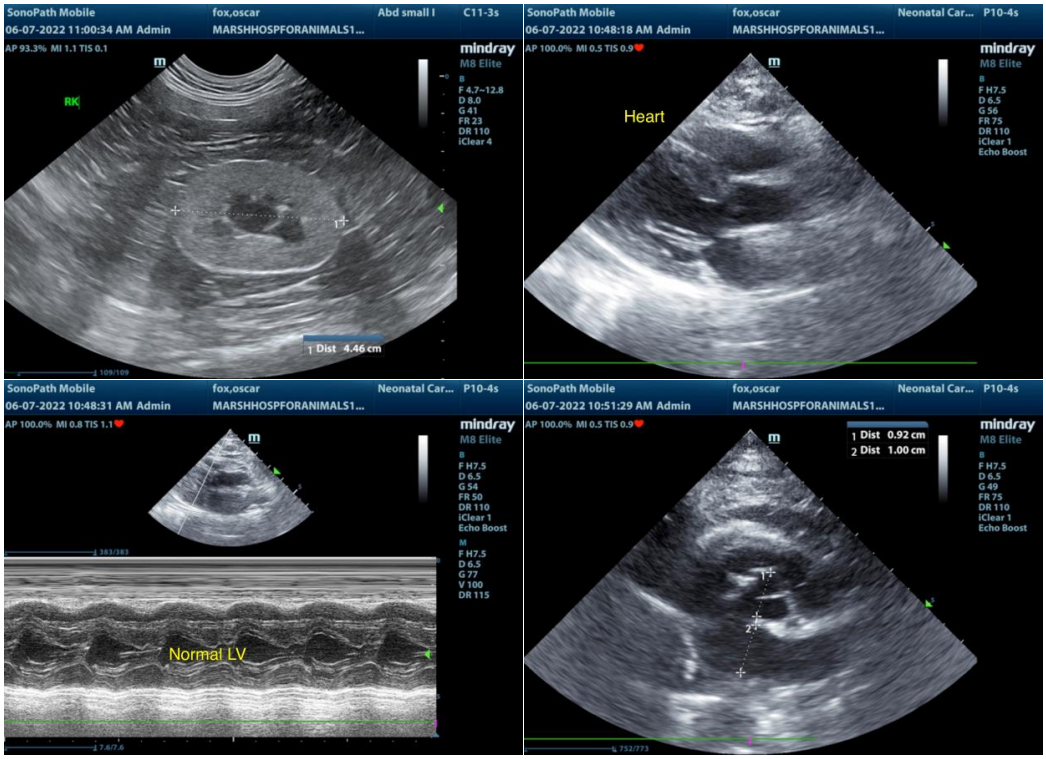
Dr. Milwicki

INVOICE

14027

DATE

6/7/22



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