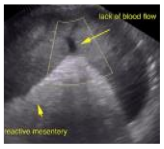
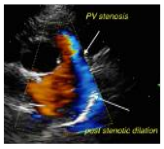
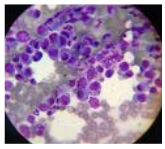
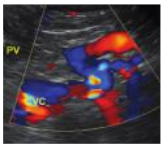
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Shilo Ulrich

SPECIES
Feline

BREED
DLH

SEX
FS

AGE
10 years

WEIGHT
13

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

IMAGING PERFORMED BY
Nicole Gotfredson

HOSPITAL NAME
Buffalo VC

REFERRING VET
Garry Gotfredson DVM

INVOICE
12242ag

DATE
11/25/22

PRESENTING CLINICAL SIGNS

11/22/22: Owner noticed the sides of abdomen seemed to have developed saddle bags for about a week and then they disappeared. Color pink, H/L normal, no murmur noted. Normal E/D no V/D. Normal energy. Abdomen difficult to palpate because almost feels like could have fluid. Has lost some weight. CBC neut 13.42 (10.29) Chem protein 5.2 and albumin low normal. U/S fluid in chest and abdomen. Abdominal fluid. Pink pale milk color. SG 1.026. Few RBC, neutrophils, lymphocytes. Send fluid to WSVL and schedule for chest and abdominal ultrasound

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

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	0.35	1.3	0.34	51.5	86

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		1.4	1.2	NM	NM	

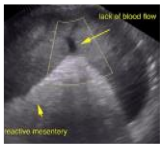
Adapted from June Boon,Veterinary Echocardiography,1998
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705

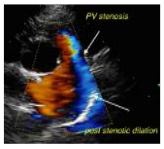
Cardiac Presentation

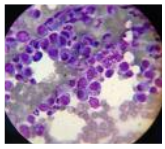
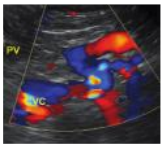
The echocardiogram in this patient demonstrated normal left atrial size based on 3 separate methods of LA evaluation. The cranial and caudal mitral valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The left ventricle presented thicknesses 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 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. Tricuspid valvular assessment demonstrated adequate linear morphology and kinesis. The right ventricle was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible pericardial was noted. Moderate volume free pleural fluid exhibiting moderate fluid echogenic changes suggestive of fluid cellularity was present. The cranial mediastinum and pericardial and extra-cardiac 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 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 was noted.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.3 cm in length. The right kidney measured 3.3 cm in length.

Adrenal Glands

The bilateral adrenal glands were not definitively visualized owing to increased peri adrenal omental artifact and peritoneal free fluid.

Spleen

The spleen exhibited subjective subnormal size consistent with volume contraction. A normal symmetrical capsule with mild parenchyma heterogeneity was present. No overt splenic masses or nodules were present.

Liver/ Gallbladder

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

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 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.

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

Pancreas

The pancreas was indistinctly visualized owing to increased peri pancreatic omental artifact.

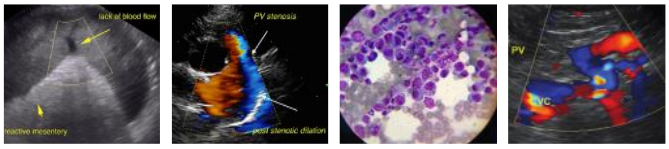
Free Abdomen

Generalized nonuniform to discretely nodular omentum was observed with moderate volume peritoneal free fluid exhibiting moderate echogenic changes suggestive of effusion cellularity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Normal echocardiogram
- Bicavitary moderate volume effusion exhibiting echogenic changes



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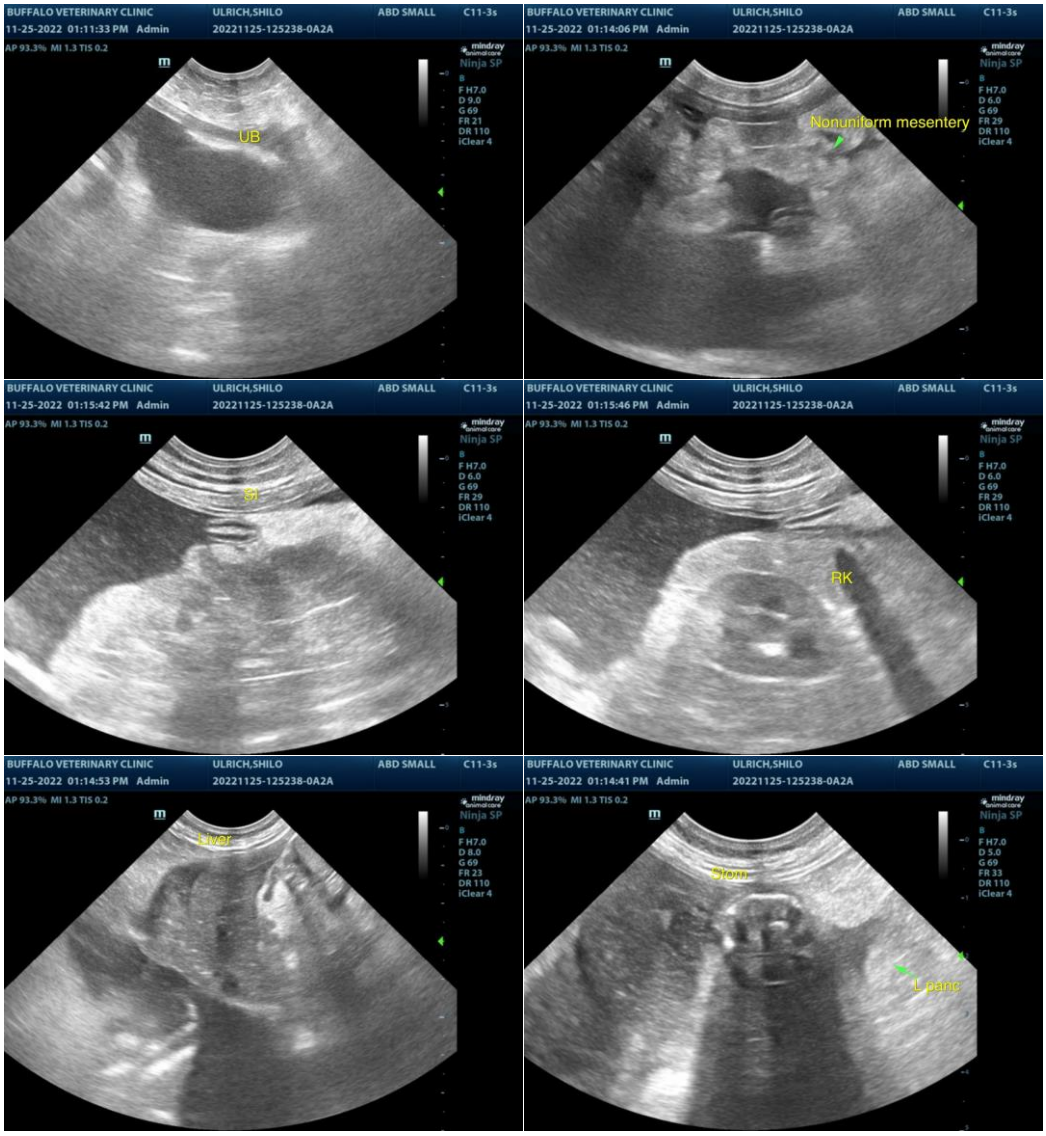
- Generalized non-uniform mesentery
- Mild age-related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Assuming no evidence of subnormal ALB level that would diminish oncotic pressure to the point of causing bicavitary free fluid, no hepatic passive congestion or significant hepatic pathology and no overt GI pathology that would result in bicavitary effusion of this nature, considerations may include bicavitary inflammatory effusion, infectious disease or lymphatic obstruction owing to carcinomatosis/lymphomatosis or similar. Recommend abdominocentesis, rapid cytospin and rapid slide preparation of the sediment to conserve the integrity of the cells would be recommended in order to optimize the cytological interpretation. Culture of the fluid can also be considered if any suspicion of inflammatory elements is noted. FIP is technically a potential yet is considered less likely given the patient's age. Strong concern for carcinomatosis/lymphomatosis or similar although this is not definitive. A guarded prognosis pending additional diagnostics is indicated.



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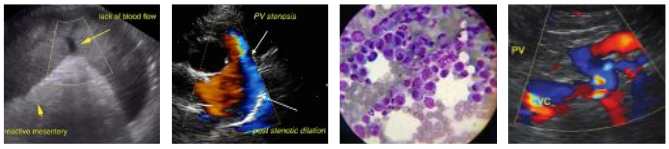

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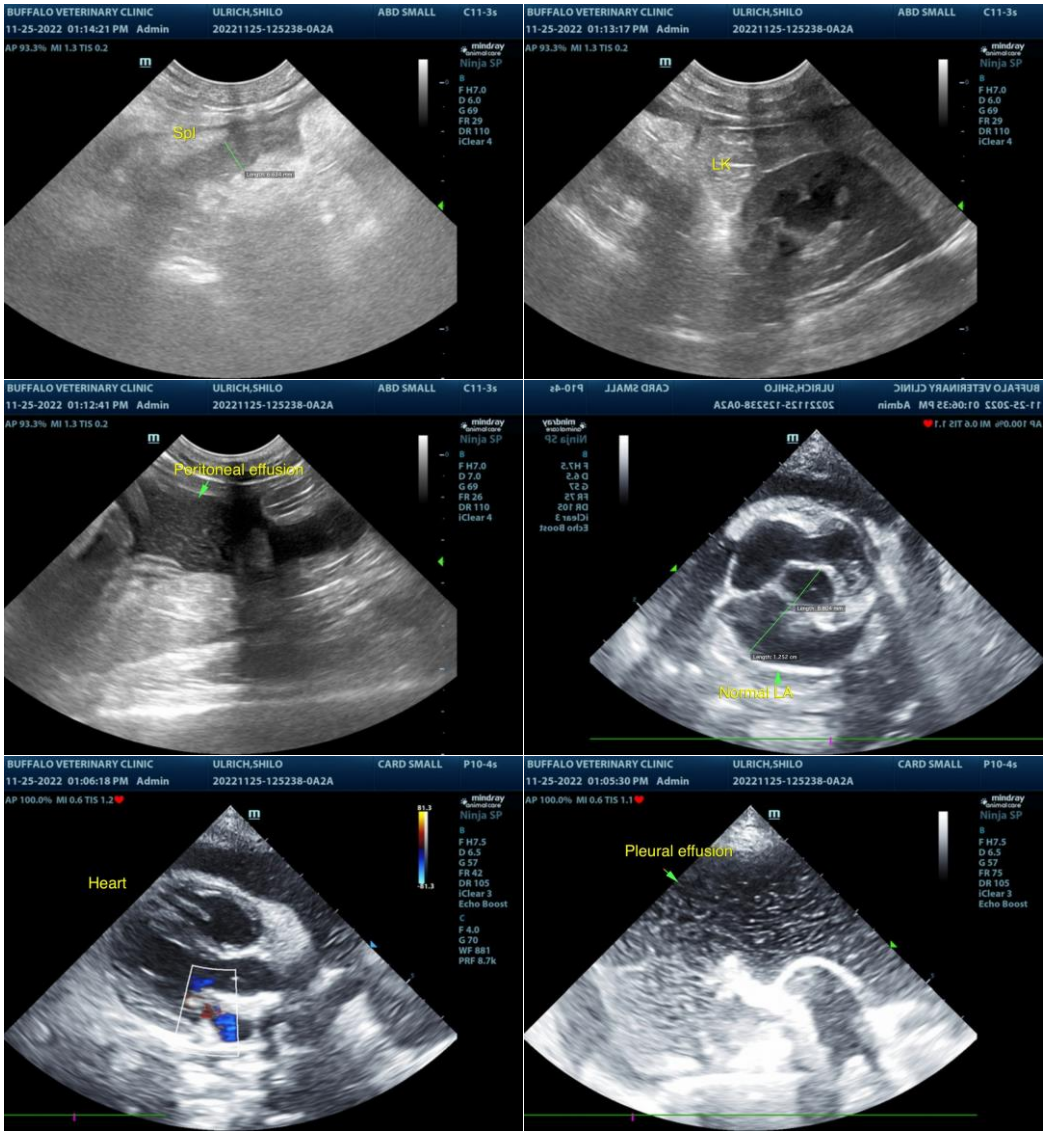

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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