

**PATIENT PRESENTING CLINICAL SIGNS**

Cam Bua-Tanzola heart murmur. Noted free fluid in abdomen trying to get cysto sample; enlarged LK on PE. not on any meds.  
**SPECIES** Abnormal PE/Chem/CBC/UA Results: HCT 34% with neutrophilia 10,449 and decreased lymphs 1161; incr eos 1161.

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

BREED	FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
DSH		-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
<b>SEX</b>	<b>NORMAL PARAMETER</b>							
Neutered Male	<b>PATIENT</b>		194	0.31	1.37	0.32	59.2	91.3
AGE	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/)	
8 Years								
<b>WEIGHT</b>	<b>NORMAL PARAMETER</b>	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
12.1 Pounds	<b>PATIENT</b>	1.49	1.52	1.2	1.1	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								

**INTERPRETED BY Cardiac Presentation**

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

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.

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

Newton Vet Hospital

**REFERRING VET**

Dr. Kim

**Urinary System**

**INVOICE**

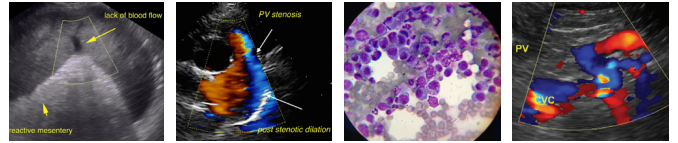
35633

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 were noted.

**DATE**

2/14/22

The aortic trifurcation was unremarkable.



**PATIENT**

Cam Bua-Tanzola

Normal size and margination were 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 3.6 cm. The right kidney measured 4.0 cm.

**SPECIES**

**Adrenal Glands**

Feline

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.35 cm in width.

**BREED**

DSH

The right adrenal gland was mildly prominent in size, yet not overtly consistent with or suggestive of neoplastic criteria. The right adrenal gland measured 0.62 cm in width.

**Spleen**

**SEX**

Neutered Male

The spleen exhibited generalized enlargement with asymmetrical lateral capsule contour. Decreased parenchyma echogenicity noted, exhibiting moderate coarse echotexture. Mildly expansive non-homogeneous to hypoechoic mass was present in the cranial spleen. The mass measured approximately 4.0 cm in diameter, while the mid spleen measured 2.3 cm in width at the level of the hilus.

**AGE**

8 Years

**Liver**

**WEIGHT**

12.1 Pounds

The liver exhibited subjective mild generalized enlargement with maintained symmetrical capsule contour. Overall, normal hepatic parenchyma echogenicity exhibiting mild coarse echotexture. Intermittent discretely hypoechoic, non-expansive intraparenchymal nodules were present. Example of liver nodule measured 0.57 cm diameter. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**Gastrointestinal**

**INTERPRETED BY**

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

The stomach presented intact wall layering with a normal wall layer ratio. Minor retained non-shadowing chyme present. Gastric body wall measured 0.30 cm.

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. Small intestinal wall measured 0.28 cm.

**IMAGING PERFORMED BY**

Diane McFadden

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

**HOSPITAL NAME**

Newton Vet Hospital

**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 was evident.

**REFERRING VET**

Dr. Kim

**Free Abdomen**

Mild volume, primarily anechoic peritoneal free fluid present. Generalized mild reactive mesentery noted, most notable around the enlarged spleen. No overt lymphadenopathy.

**INVOICE**

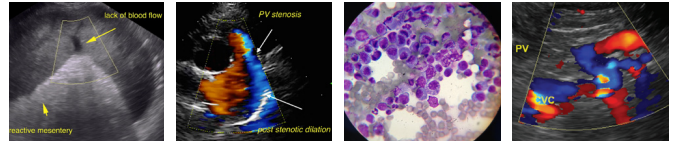
35633

**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram – probable benign flow murmur.
- Infiltrative splenomegaly with cranial splenic mass

**DATE**

2/14/22



**PATIENT**

Cam Bua-Tanzola

- Mild subjective hepatomegaly exhibiting intermittent non-specific yet suspicious intraparenchymal nodules

**SPECIES**

Feline

- Moderate volume, primarily anechoic peritoneal free fluid and generalized reactive mesentery

**BREED**

DSH

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Although sampling is required for further clarification, concern for infiltrative splenic neoplasia with primary concern for splenic round cell neoplasia such as lymphoma, myeloma, mast cell neoplasia or other. Potential for benign splenomegaly and mass such as trauma, hematoma, hyperplasia, hematopoiesis, hemangioma or other possible, yet thought less likely.

**SEX**

Neutered Male

The overall mild subjective hepatomegaly with intermittent hypoechoic nodules may indicate benign hepatopathy with areas of hematopoiesis or nodular to regenerative hyperplasia. However, concern for concurrent primary or metastatic hepatic parenchymal or nodular disease (given the appearance of the spleen) is warranted.

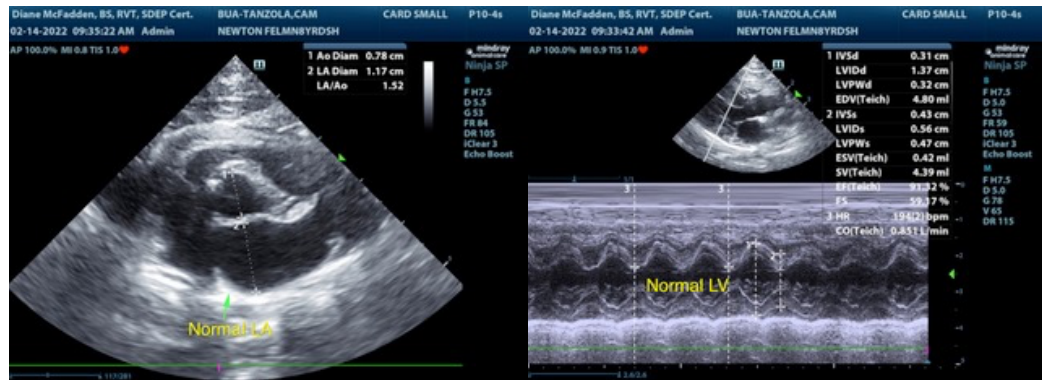
**AGE**

8 Years

Assuming normal clotting status, ultrasound guided hepatosplenic FNA using 25-gauge needle along with effusion analysis cytology +/- culture and sensitivity to assess for potential intraabdominal lymphomatosis or similar with potential for oncology consult recommended. Pre-treatment with Benadryl suggested prior to FNA if elected. If not done, 3-view chest radiographs are recommended.

**WEIGHT**

12.1 Pounds



**INTERPRETED BY**

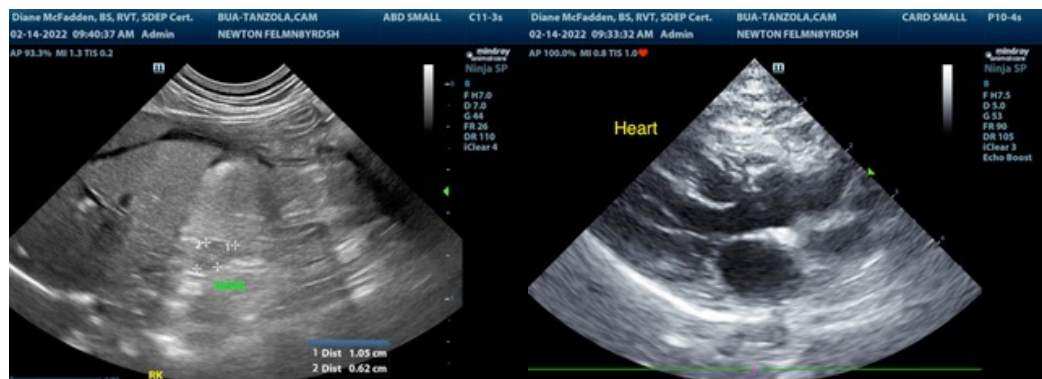
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

Newton Vet Hospital



**REFERRING VET**

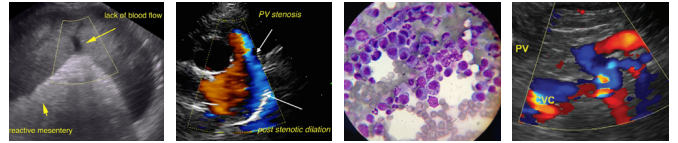
Dr. Kim

**INVOICE**

35633

**DATE**

2/14/22



**PATIENT**

Cam Bua-Tanzola

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

8 Years

**WEIGHT**

12.1 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

Newton Vet Hospital

**REFERRING VET**

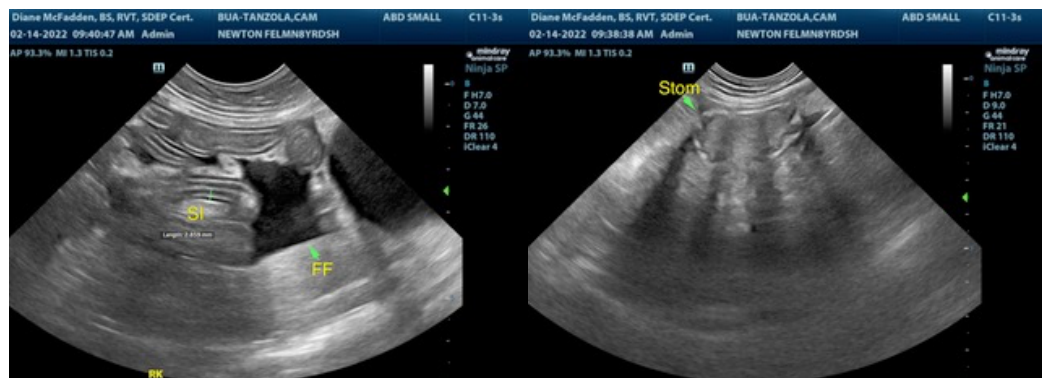
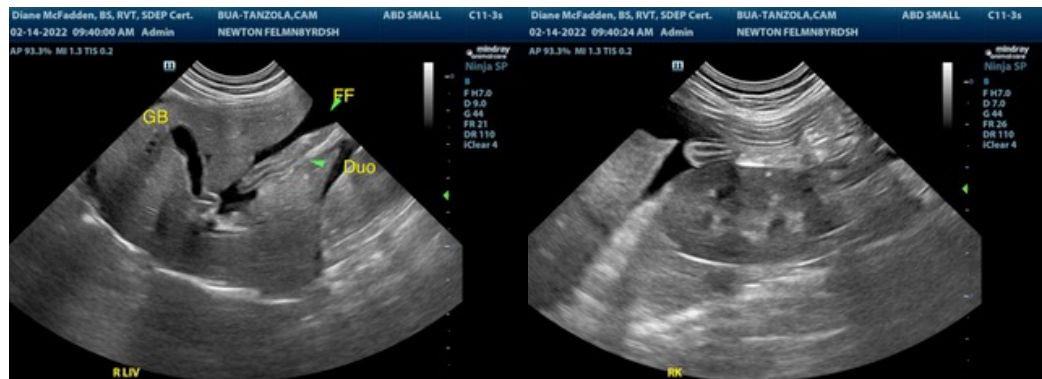
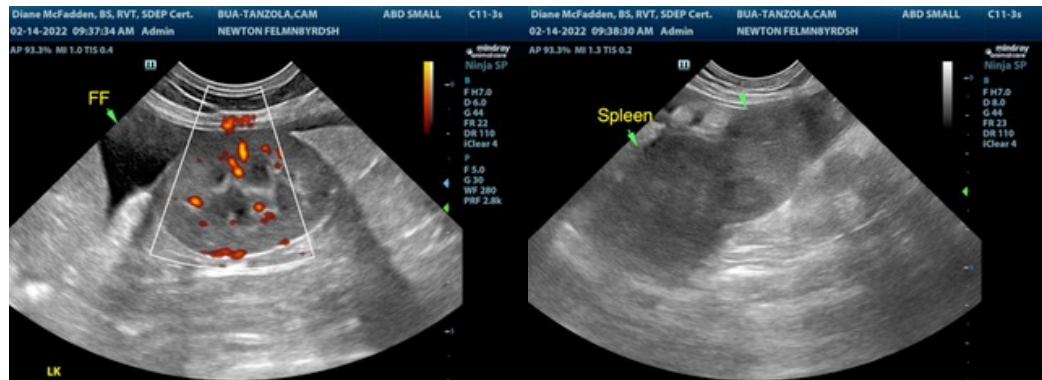
Dr. Kim

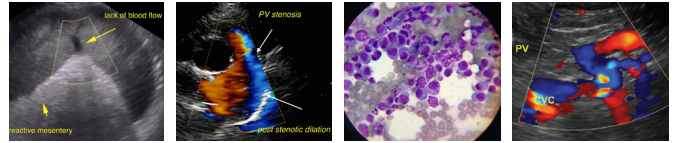
**INVOICE**

35633

**DATE**

2/14/22





**PATIENT**

Cam Bua-Tanzola

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

**SPECIES**

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.

**BREED**

DSH

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

**SEX**

Neutered Male

**AGE**

8 Years

**WEIGHT**

12.1 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

Newton Vet Hospital

**REFERRING VET**

Dr. Kim

**INVOICE**

35633

**DATE**

2/14/22