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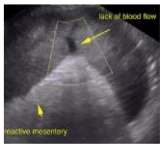
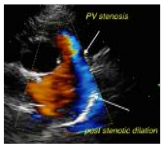
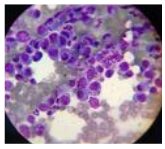
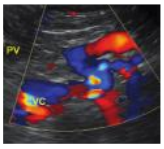
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

**PATIENT**

Tank DeMatteis

**SPECIES**

Canine

**BREED**

Burmese

**SEX**

Male Intact

**AGE**

9 years

**WEIGHT**

116

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Garry Gotfredson DVM

**HOSPITAL NAME**

Buffalo VC

**REFERRING VET**

Garry Gorfredson DVM

**INVOICE**

14083

**DATE**

6/14/22

## PRESENTING CLINICAL SIGNS

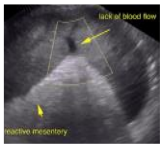
Patient presented for poor appetite, seems more vocal than usual and uncomfortable. Has lost ~10 lbs in the past couple weeks. Was presented to a different clinic for GDV surgery about 9 months ago. The records did not state specifically if spleen was removed or other.
Abnormal PE/Chem/CBC/UA Results: Chest Radiographs: There appears a large sail sign like mass over the cardiac shadow on the VD. The lateral view does also show questionable to area over heart base as well. Abdomen radiographs show less detail but no overt mass is noted.

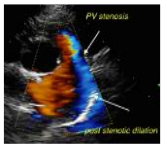
## ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

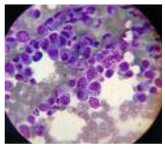
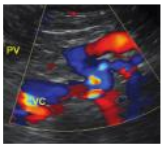
| **CANINE CARDIAC PARAMETERS** | **MR VMAX** (m/s) | **TR VMAX** (m/s) | **LA/AO** (Boon method) | **LA/AO** (Heart Base; Swe) | **FS** (%) | **EF** (%) | **EPSS** (cm) |
|---|---|---|---|---|---|---|---|
| **NORMAL PARAMETER** | 4.5-5.5 | <2.7 | 1.3 | <1.3 | 28-40 | 40-100 | <0.6 |
| **PATIENT** | | | | 1.17 | 44.4 | 79.1 | 0.36 |
| **CANINE CARDIAC PARAMETERS** | **HR** (BPM) | **AV VMAX** (m/s) | **PV MAX** (m/s) | **BODY WEIGHT** (kg) | **LA** 2D short axis Base view (cm) | **LVIDd** Avg; 2D and m-mode short axis (cm) | **LVIDs** Avg; 2D and m-mode short axis (cm) |
| **NORMAL PARAMETER** | 50-100 | 0.7-1.7 | 0.7-1.6 | | | | |
| **PATIENT** | NM | 1.0 | 0.75 | | 4.2 | 4.5 | |

### *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 overt or visible **pericardial** or free pleura fluid was noted in the visible window. Hypoechoic nodule to small mass was present in the area of the caudal thorax adjacent to the heart and subjectively cranial to the level of the diaphragm, measuring 3.1 cm in diameter.



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## *Urinary System*

The urinary bladder, trigone, and cystourethral junction 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.

The prostate was enlarged in size with intact, symmetrical capsule contour. The margins of the gland were intact and able to be differentiated from the surrounding tissue. The prostatic parenchyma was mildly echogenic to heteroechoic without parenchymal mineralization. The prostate measured 6.7 cm x 4.0 cm. Anechoic, thinly walled parenchyma cysts were present.

A solitary medial iliac lymph node was present. The lymph node was essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). The lymph node measured 2.1 cm x 0.63 cm.

Normal size and margination were present in the left kidney. 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 8.0 cm in length. The right kidney was not overtly visualized.

## *Adrenal Glands*

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.58 cm width at the caudal pole and 0.60 cm width at the cranial pole. The right adrenal gland was not definitively visualized.

## *Spleen*

The spleen exhibited multifocal, variably sized, mildly expansive, well-demarcated, hypoechoic nodules diffusely throughout the spleen. An example measured 1.2 cm in diameter.

## *Liver/ Gallbladder*

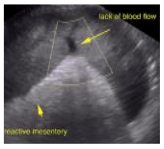
The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. Intermittent, subtly hypoechoic hepatic intraparenchymal nodules were present, an example measuring 1.9 cm. The gallbladder was non distended in size with mild echogenic, nonmineralized biliary sludge, likely incidental. The cystic duct and common bile ducts were normal without evidence of dilation.

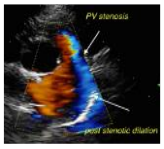
## *Gastrointestinal*

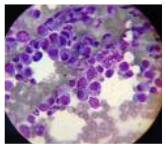
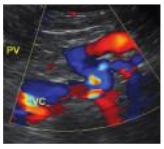
The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

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.



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### *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*

Intermittent to multiple perisplenic to mid to cranial mesenteric lymph nodes were present. The lymph nodes exhibited symmetrical to rounded margination with abnormal width: length ratio (>0.5). The enlarged lymph nodes were bordered by echogenic to reactive mesentery. An example of the lymph nodes measured 1.5 cm diameter. No overt peritoneal free fluid was noted.

## ULTRASONOGRAPHIC FINDINGS

### *Primary Findings*

- Normal echocardiogram
- Probable hypoechoic solid caudal thoracic nodule / small mass
- Diffusely nodular spleen
- Hepatic parenchymal remodeling with intermittent subtle hypoechoic nodules
- Perisplenic to mid to cranial mesenteric lymphadenopathy
- Overtly normal gastrointestinal tract

### *Secondary Findings*

- Benign prostatic hyperplasia with parenchymal cysts, potential for prostatitis possible

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although sampling is required for further assessment, the diffusely nodular spleen with concurrent perisplenic to mesenteric lymphadenopathy and subjective caudal thoracic nodule to small mass is strongly suggestive of disseminated round cell neoplasia with primary concern for disseminated histiocytic sarcoma or similar, given the breed.

Assuming normal clotting status, ultrasound-guided FNA of a splenic nodule, perisplenic or mesenteric lymph node if accessible, as well as the subjective caudal thoracic nodule to small mass for screening cytology and potential for oncology consultation are recommended.

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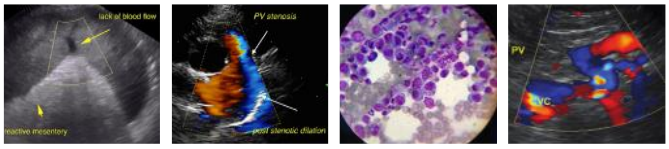


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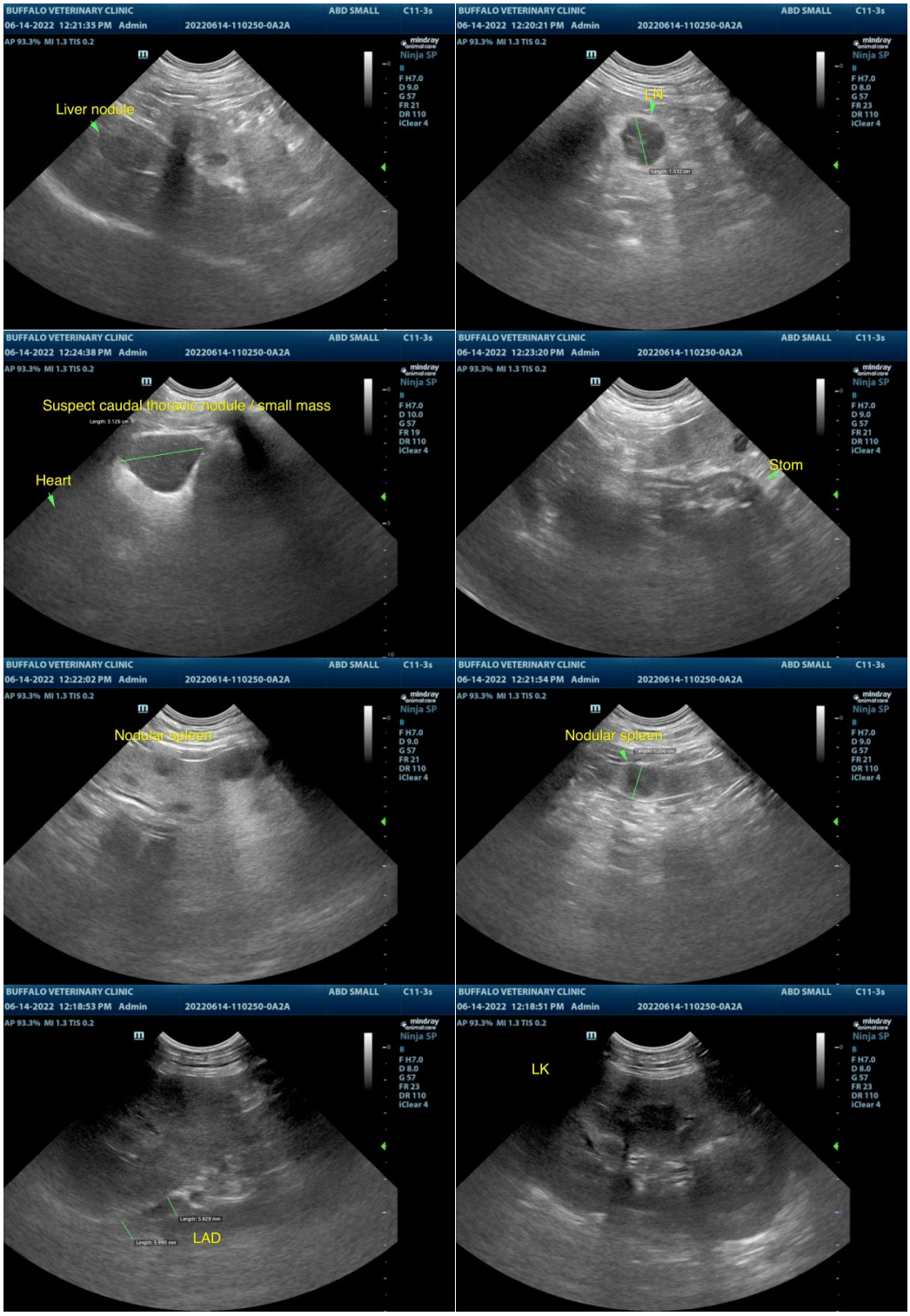

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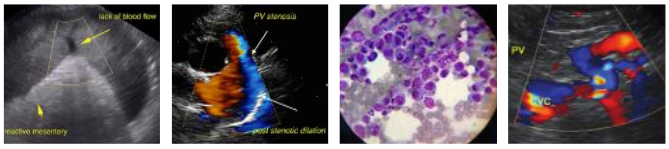


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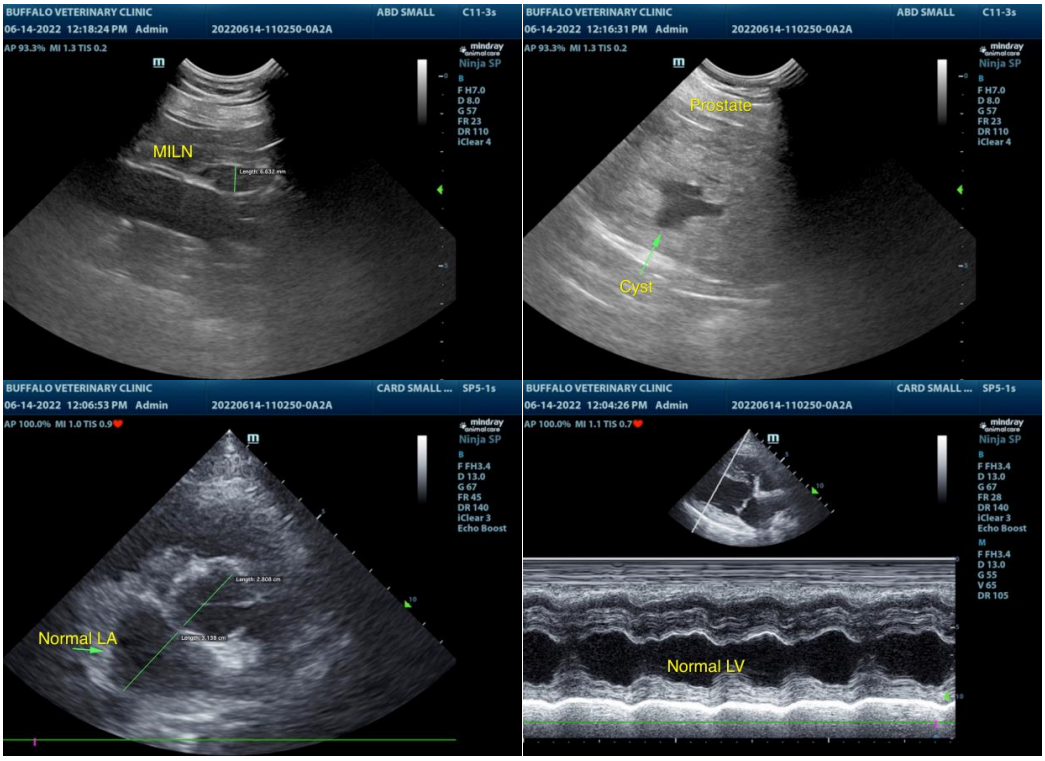


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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**