

**DATE PRESENTING CLINICAL SIGNS**

2/20/23

Presented end of December 2022 for acute vomiting which has now resolved but incidental finding on survey radiographs concern for splenomegaly with possible scalloped edges. Dog has had chronic systolic murmur grade 2 with mild cough so recommended have heart assessed as well  
Mildly elevated ALP (200s), mild increase in BUN.

**PATIENT**

Maggie McCann

Current Medications: None.

Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Canine

Imaging Performed By: Stephanie Warga RDCS, RVT.

**BREED**

Beagle

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is moderately distended with anechoic urine. A 0.74 x 0.72 cm irregular nodule/lesion with a few small ill-defined hyperechoic to mineralized foci is arising from the ventral wall. The remaining bladder wall is normal in thickness with a smooth mucosal surface. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

**SEX**

Female, spayed

**AGE**

10/29/2011

The left kidney is normal in size (4.82 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

24 lbs.

The right kidney is normal in size (5.11 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**HOSPITAL NAME**

Bayside Animal  
Medical Center

**REFERRING VET**

Dr. Oliver

**Adrenal Glands**

The left adrenal gland is normal size (0.51 cm at cranial pole) (0.63 cm at caudal pole) (1.75 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.99 cm at cranial pole) (0.61 cm at caudal pole) (1.85 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is subjectively normal in size. The cranial lateral margin is slightly irregular with an approximately 3 cm isoechoic swelling in this region. Small, ill-defined hyperechoic nodules/areas are also observed throughout the organ. The remaining parenchyma is subtly mottled in appearance. Splenic vasculature is normal with no evidence of thrombosis.

**INVOICE**

14603

**Liver**

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of echogenic debris is

observed within the lumen, some of which is gravity-dependent and some of which is suspended. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

### ***Pancreas***

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely slightly hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

### ***Free Abdomen***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A few mesenteric lymph nodes are visible, the largest measuring 1.05 cm in length. The nodes are normal in shape and echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- The splenic parenchymal changes, including the isoechoic swelling/bulge at the cranial aspect, could be consistent with a benign process (i.e., lymphoid hyperplasia, extramedullary hematopoiesis, antigenic stimulation or splenitis). Alternatively, emerging neoplasia (i.e., lymphoma) cannot be excluded. The hyperechoic nodules/areas trend toward the benign (i.e., myelolipomas) with a low possibility of a neoplastic process.
- The urinary bladder wall lesion could be consistent with an emerging tumor (i.e., transitional cell carcinoma), a benign polyp, granuloma, other.

### **Secondary Findings:**

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Minor bilateral age-related renal changes with dystrophic mineralization.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATION**

- Regarding the splenic changes, consider a fine needle aspirate of the bulging area at the cranial aspect, if clotting status is appropriate. A 25-gauge needle should be used.

- Regarding the urinary bladder wall lesion, consider a urine BRAF test to further assess for lower urinary tract neoplasia. A positive test confirms the diagnosis. However, if a negative result is obtained, neoplasia cannot be completely excluded. Also consider rechecking an ultrasound of the bladder in 3-4 weeks to assess for progression. Three-view thoracic radiographs can also be considered to assess for pulmonary metastatic disease.
- Regarding the elevated ALP, consider serial monitoring (i.e., every 3 months) of the patient's liver values. If liver values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.





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.

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.

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