

**DATE**

12/6/21

**PRESENTING CLINICAL SIGNS**

History: Recent hx. of vomiting and weight loss. Bloodwork at ER on 12/1 = NSF. P clinically improved with outpatient care, but Owner would like to ensure no other concerns. Hyperechoic nodules seen on AFAST scan. Radiographs NSF as well.

**PATIENT**

Charlie Brown

Current Medications: 60mg Cerenia started on 12/2/2021.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required for a full diagnostic ultrasound.

Stat Report: Not requested/declined.

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Male, neutered

**AGE**

12/20/2012

**WEIGHT**

69. lbs.

**INTERPRETED BY**

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**IMAGING PERFORMED BY**

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RDCS, RVT

**HOSPITAL NAME**

Everhart VC

**REFERRING VET****INVOICE**

12655

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

The urinary bladder is mildly distended with anechoic urine. The wall is diffusely thickened and irregular, particularly in the region of the apex. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (1.33 cm in width) with a normal shape and smooth peripheral contours. At least 2 cystic areas are observed within the parenchyma, the larger measuring 1.56 cm. The remaining parenchyma is homogeneous in appearance. The prostatic urethra is not overtly dilated.

The left kidney is small in size (5.78 cm in length) with an irregular shape. The cortex is thickened and there is poor corticomedullary distinction. There is visible loss of the renal medullary volume. Moderate pyelectasia is present (0.55 cm in the longitudinal plane). At least one cortical infarct is suspected at the lateral aspect. There is no evidence of nephroliths or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (8.34 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is thickened and hyperechoic and there is moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is borderline enlarged (1.03 cm at cranial pole) (1.12 cm at caudal pole) (3.23 cm in length) with a normal shape and smooth peripheral contours. The parenchyma is slightly heterogeneous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is borderline enlarged (0.91 cm at cranial pole) (0.85 cm at caudal pole) (2.87 cm in length) with a normal shape and smooth peripheral contours. The parenchyma is slightly heterogeneous with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is subjectively normal in size with slightly irregular peripheral contours. A 3.65 x 3.23 cm round heterogeneous cavitated mass is observed at the cranial aspect. The lesion causes capsular expansion. The remaining splenic parenchyma is subtly mottled in appearance. Splenic vasculature is normal with no evidence of thrombosis.

**Liver**

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely mottled in appearance. A 1.91 x 1.82 cm ill-defined

hypoechoic to slightly heterogeneous nodule is observed at the caudal aspect. In addition, a 1.33 cm hyperechoic nodule is observed approximately mid-liver. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is normal in thickness with a few polypoid like lesions arising from the luminal surface. A small amount of echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

### ***Gastrointestinal***

The gastric wall is normal to mildly thickened (up to 1.33 cm) with retention of the normal layering pattern. The gastric lumen is not distended. The pyloric outflow tract is patent. Several segments of small intestine are mildly distended with fluid and chyme. These segments appear to be mainly located in the left cranial quadrant. Other small intestinal segments are 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.

### ***Pancreas***

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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***

There is no evidence of free fluid. A few prominent mesenteric lymph nodes are visualized, the largest measuring 2.37 cm in length.

### ***Other***

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- Splenic mass. Neoplasia (i.e., sarcoma, round cell tumor) is considered likely with a lower possibility of benign pathology.
- The segmental small intestinal dilation is suggestive of functional ileus. However, a mechanical obstruction cannot be completely excluded.
- The gastric wall changes are most consistent with an inflammatory process with potential for emerging neoplasia.

### **Secondary Findings:**

- The urinary bladder wall changes may be artifactual due to lack of full repletion. Alternatively, cystitis (or less likely, emerging neoplasia) is possible. Correlation with clinical findings is recommended.
- Bilateral, age-related renal pathology, more severe on the right with left pyelectasia and cortical infarcts.

- Bilateral adrenomegaly.
- The hepatic nodule could be consistent with neoplasia (i.e., metastatic disease, primary tumor). Alternatively, benign change (i.e., regenerative nodule) may be present. Histopathology would be necessary to differentiate these possibilities. The diffuse hepatic parenchymal changes are non-specific and are likely secondary to a benign age-related change.
- The pancreatic changes may be a normal variant for this patient or could be consistent with mild, chronic pancreatitis. Correlation with clinical findings is recommended.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.
- The significance of the prostatic cysts is unclear. If the patient was neutered late in life these may represent residual cysts. However, emerging neoplasia (i.e., hemangiosarcoma) cannot be completely excluded.

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

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Consider a fine needle aspirate of the splenic mass (if clotting status is appropriate). A 25-gauge needle should be used. There is some risk of iatrogenic hemorrhage with the procedure, particularly given the cavitated nature of the mass. A splenectomy with submission of the spleen for histopathology is another option. If surgery is pursued, biopsies of the liver nodule and gastrointestinal tract should be obtained concurrently.









**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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