

## PATIENT PRESENTING CLINICAL SIGNS

**Bubbles Lando** History: Patient presents for vomiting and diarrhea. Relief vet suspects splenomegaly on radiographs, want to confirm - R/O splenomegaly. Current meds: Cerenia, metronidazole, Yunnan Baiyo.  
**SPECIES** Abnormal PE/Chem/CBC/UA Results: ALP 338, Ca 12.2 (corrected 11.4), Phos. 2.6.  
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## Canine ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

**BREED** The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A 1.05 cm cystic calculus is observed. Luminal contents are otherwise anechoic. The region of the trigone and the visible portion of the proximal urethra are normal.  
 Spaniel Mix

### SEX

Spayed Female The left kidney is normal in size (6.35 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.

### AGE

14.5 years The left kidney is normal in size (6.04 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

61.9 lbs

### Adrenal Glands

The left adrenal gland is normal size (0.58 cm at cranial pole) (0.54 cm at caudal pole) (2.71 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.

## INTERPRETED BY

Andrea Nicastro, DVM,  
 Diplomate ACVIM  
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 Medicine)

The right adrenal gland is normal size (0.68 cm at cranial pole) (0.48 cm at caudal pole) (2.64 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.

## IMAGING PERFORMED BY

Kelly Vazquez

### Spleen

The spleen is normal to slightly prominent in size (2.29 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is subtly mottled in appearance. A few irregular myelolipomas are observed. Splenic vasculature appears normal with no evidence of thrombosis.

## HOSPITAL NAME

Ramapo Valley  
 Animal Hospital

### Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is slightly mottled in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion

## REFERRING VET

Dr. Katara

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of mineralized, gravity dependent, mineralized sludge +/- distinct choleliths, are observed within the lumen. The cystic and common bile ducts are normal.

## INVOICE

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### Gastrointestinal

The gastric lumen is mildly distended is ingesta. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with chyme. The small intestinal wall

## DATE

5/11/22

thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

#### ***Pancreas***

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

#### ***Free Abdomen***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

#### ***Other***

A 3.34 x 1.50 cm well-circumscribed subcutaneous mass with a fat opacity is visualized.

### **ULTRASONOGRAPHIC FINDINGS**

#### **Primary Findings**

- Suspected cystic calculus
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, antigenic stimulation, or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

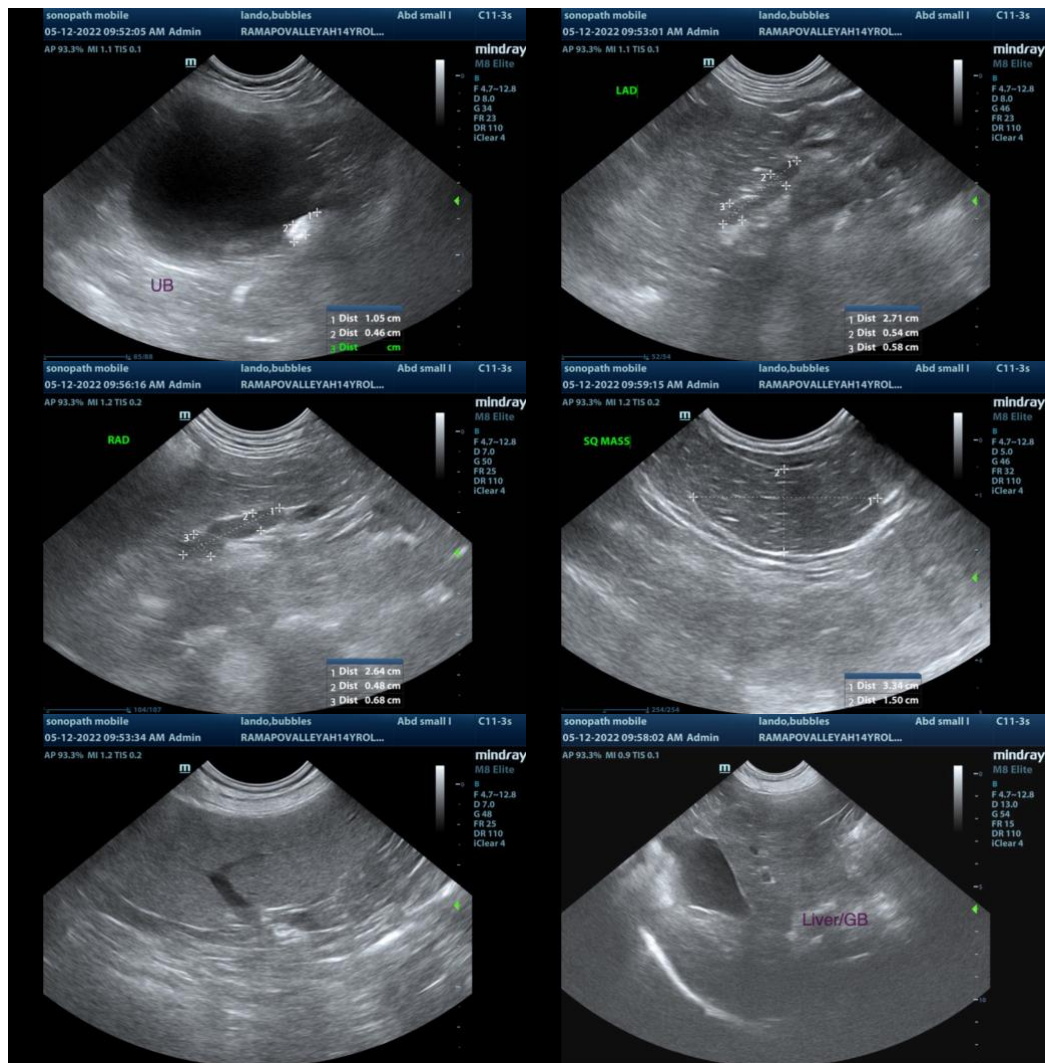
#### **Secondary Findings**

- 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.
- Mineralized gall bladder sludge +/- distinct choleliths

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

- To further reevaluate for round cell neoplasia in the spleen, a fine-needle aspirate can be considered if clotting status is appropriate.
- Regarding the GI signs, consider a fecal evaluation for ova and Giardia and supportive care. If the patient's clinical signs do not improve within 48-72 hours of medical management, a more advanced GI workup may be warranted.
- Regarding the hypercalcemia, consider an ionized calcium +/- PTH/PTHrp as well as thoracic radiographs and a rectal examination to assess for anal gland masses.
- Regarding the cystic calculus, a cystotomy with stone removal, analysis and culture is recommended. Alternatively, medical dissolution of the stones can be considered with a

prescription renal diet and broad-spectrum antibiotic therapy. If there is no improvement in stone size after 4 weeks of therapy, a cystotomy should be reconsidered. If the stone size is reduced, continue therapy until complete dissolution has been achieved.



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.

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