



**PATIENT PRESENTING CLINICAL SIGNS**

**Robbie Marin**  
Hx: Robbie is a MI 12yr Golden Retriever presenting for bowel movement accidents in house, vomiting and soft stool. O said this has been going on for a month or two intermittently. O is seeing chicken and rice in stool and is concerned p is not digesting food. P has been losing weight. We saw p originally for neurologic issues that have resolved with d/c flea and tick supplements. Moderately elevated ALP.

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

Male, intact

**AGE**

7/29/2010

**WEIGHT**

56 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

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

**HOSPITAL NAME**

Sun Dog Cat Moon

**REFERRING VET**

Dr. Pruitt

**INVOICE**

14824

**DATE**

4/19/23

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is enlarged (4.63 cm in width) with relatively smooth curvilinear peripheral contours. The parenchyma is hyperechoic relative to surrounding omental fat and slightly heterogeneous in appearance with several small ill-defined cystic areas throughout the gland. The prostatic urethra is not overtly dilated.

The left kidney is normal size (6.98 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (6.84 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is normal size (0.44 cm at cranial pole) (0.57 cm at caudal pole); 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 (0.96 cm at cranial pole) (0.53 cm at caudal pole); 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 normal in size (2.31 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A 1.35 cm irregular, hypoechoic nodule is observed approximately mid-spleen. Splenic vasculature is normal.

*Liver*

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen with minor changes consistent with age-related remodeling. No focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of



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congestion. The portal vein to caudal vena cava ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is normal in thickness. At least one small polypoid like lesion is arising from the luminal surface. Luminal contents are otherwise mostly anechoic. The cystic and common bile ducts are normal/not seen.

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***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.

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***Pancreas***

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

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***Free Abdomen***

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

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A brief echocardiogram reveals no obvious evidence of pericardial effusion.

The testicles are subjectively normal in size (left testicle 2.93 x 2.56; right testicle 2.52 x 2.18 cm) with normal shape and smooth peripheral contours. Within the left testicular parenchyma, a 1.43 cm heterogeneous slightly cystic nodule is visualized. The parenchyma in the right testicle is homogenous. No focal lesions are observed.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- The splenic nodule could be consistent with an emerging tumor (i.e., sarcoma, round cell tumor) or a benign focus (i.e., lymphoid hyperplasia, extramedullary hematopoiesis or similar).

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**Secondary Findings:**

- The hepatic parenchymal changes, in conjunction with the patient's liver enzyme pattern, is most consistent with age-related remodeling and/or mild regenerative nodular hyperplasia with a lower possibility of more insidious hepatic pathology.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The prostate changes are most consistent with cystic benign prostatic hyperplasia. Concurrent bacterial prostatitis is possible and considered less likely in the absence of appropriate clinical signs.

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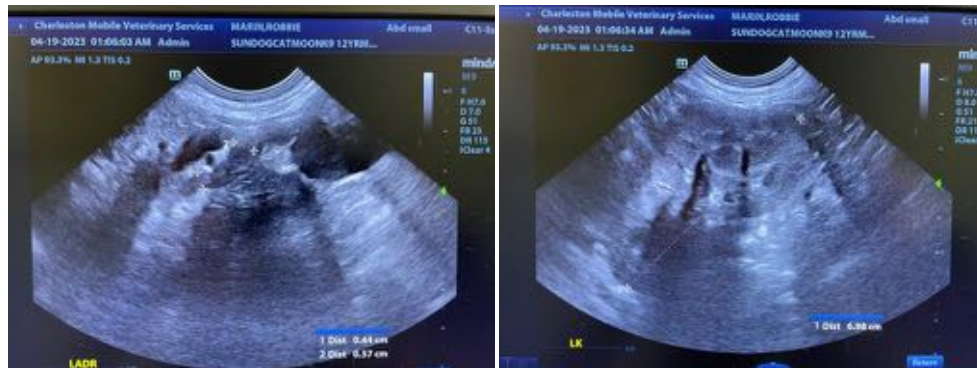
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- Left testicular nodule. Differentials include neoplasia vs benign process (i.e., granuloma, inflammatory focus, age-related remodeling).

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Given the patient's history of weight loss and chronic intermittent GI signs, consider the following:
  1. Three-view thoracic radiographs to assess cardiopulmonary status.
  2. Prophylactic deworming with Fenbendazole.
  3. Malabsorption panel including serum cobalamin, folate, TLI, PLI and a resting cortisol level (send to Texas A&M).
  4. 2-4 week limited antigen or hydrolyzed protein diet trial.
  5. Initiation of a probiotic with a high colony count (i.e., Visbiome, Provable) along with a fiber supplement (i.e., Metamucil, Konsyl).
  6. Depending on the results of the above diagnostics/therapeutics, endoscopic or surgical GI biopsies may be necessary to get a definitive diagnosis.
- Regarding the splenic nodule, consider a fine needle aspirate (if clotting status is appropriate). A 25 gauge needle should be used. If aspiration is not performed, consider a recheck ultrasound in 4-6 weeks to assess for growth of the nodule.
- If the patient is to go under anesthesia for endoscopic or surgical biopsies, consider castration with submission of the testicles for histopathology.





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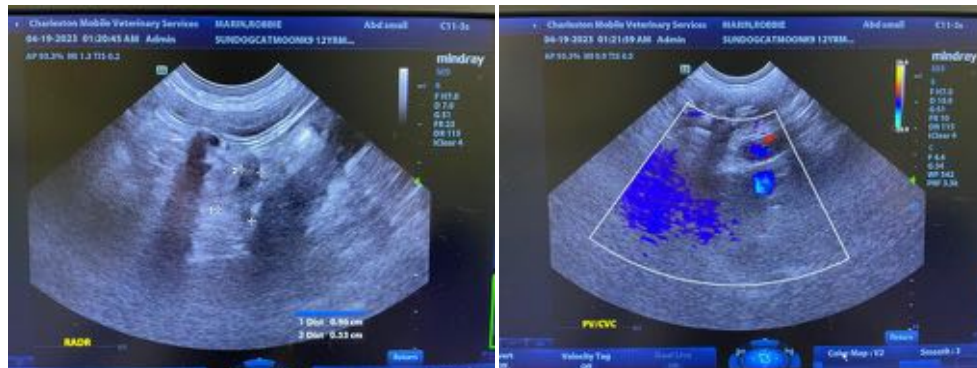
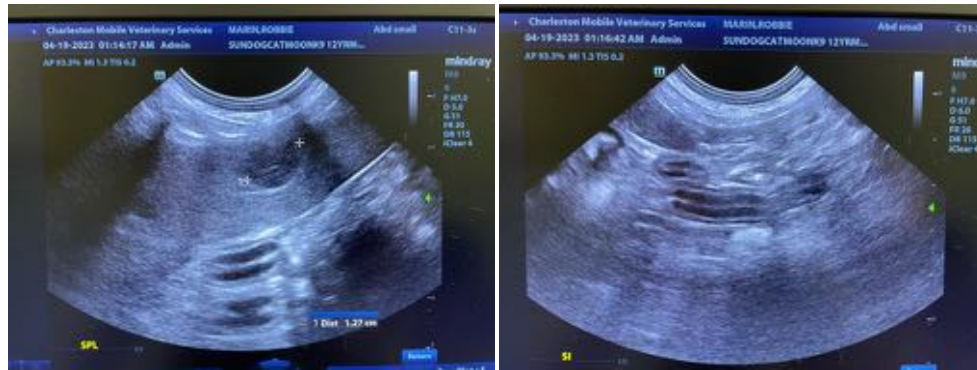
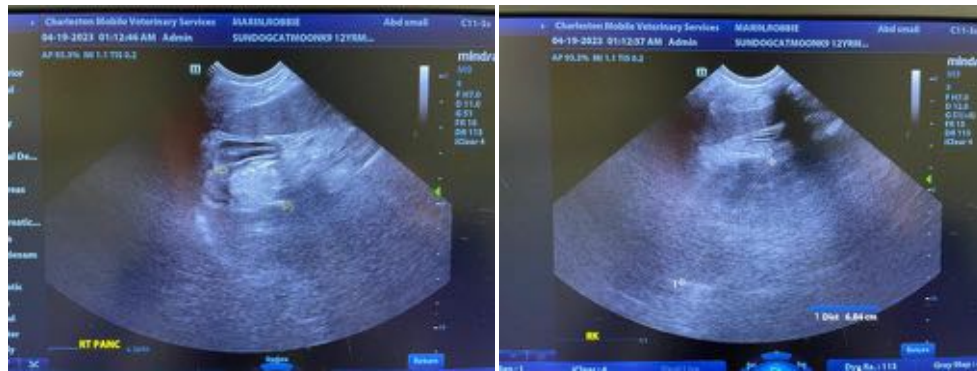
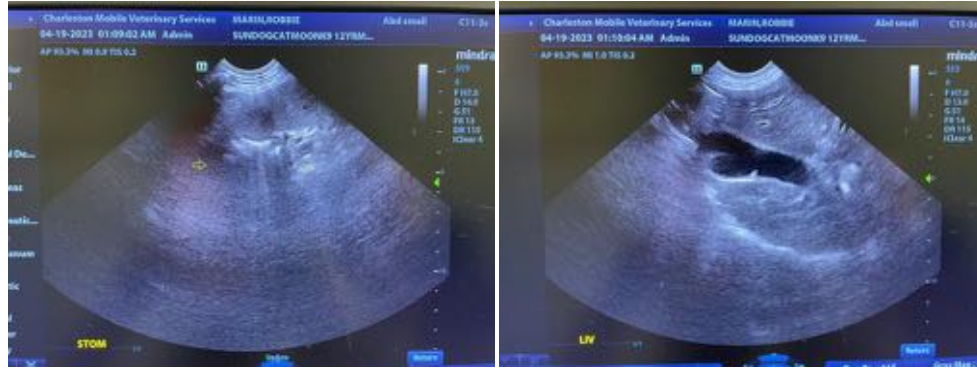
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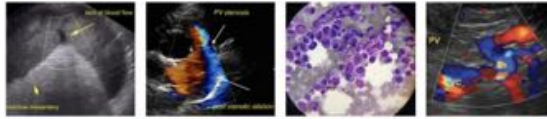
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
[info@SonoPath.com](mailto:info@SonoPath.com)

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