



## PATIENT

Harlee Buster Marshall

## SPECIES

Canine

## BREED

Pug

## SEX

Neutered Male

## AGE

11 Years

## WEIGHT

21 lbs

## INTERPRETED BY

Remo Lobetti, BVSc,  
MMedVet (Med),  
PhD, Dipl. ECVIM

## IMAGING PERFORMED BY

Dr. Emily Shotts

## HOSPITAL NAME

Riverbend Veterinary  
PetCare Hospital

## REFERRING VET

Dr. Emily Shotts

## INVOICE

72035

## DATE

11/21/25

## PRESENTING CLINICAL SIGNS

11 year old MN pug with history of mild anemia which will sometimes appear regenerative on labwork and other times non-regenerative. Beginning on routine annual labwork 8/22/2024 patient was mildly anemic. Blood smear on 8/31/2024 showed moderate anemia without evidence of regeneration. A FAST scan revealed a mottled spleen. Follow up CBC on 10/1 revealed a regenerative anemia. Ultrasound guided FNA samples were obtained from the spleen on 10/12/2024 which were inconclusive. Annual labwork on 9/15/2025 revealed a mild nonregenerative anemia with a mild neutropenia. Repeat labwork on 10/30/2025 revealed a now regenerative anemia with even further neutropenia. Patient remains asymptomatic at home.

Abnormal PE/Chem/CBC/UA Results: 10/30/2025: RBC 4.86 M/ $\mu$ L Hematocrit 33.1% Hemoglobin 10.7 g/dL MCH 22.0 pg MCHC 32.3 Reticulocytes 151K/ $\mu$ L Reticulocyte Hemoglobin 20.9 pg WBC 5.5 K/uL Neutrophils 1.886 k/uL ALP 184 U/L

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

Full urinary bladder containing a moderate amount of floating hyperechogenic sediment, with a normal thickness and smooth appearance of the wall.

Normal appearance of the trigone area, proximal urethra, and iliac blood vessels.

Normal appearance and size of the iliac lymph nodes. Ureters not visualized, which can be considered a normal finding.

Normal renal size, architecture, echogenic appearance, cortico-medullary differentiation, which maintains a 1:3 cortex to medulla ratio, pelvis, and capsule. No infarcts, mineralization or renoliths evident. The kidneys measured 4.7 cm each.

### Reproductive System

Not visualized.

### Adrenal Glands

Not visualized.

### Spleen

Normal size (1.1 cm in width) with a diffuse mottled echogenic appearance, but maintaining a regular curvilinear capsule. Normal volume of the splenic vasculature without any overt congestion or thrombosis evident.

### Liver

Normal size, echogenic appearance, portal markings, and regular curvilinear capsule. No nodules or masses evident. Normal appearance of the hepatic and portal vasculature.

### Gallbladder

Full containing a small amount of non-adhered hyperechogenic sediment. Normal thickness and echogenic appearance of the wall. Normal size and appearance of the cystic and common bile duct.



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## *Gastrointestinal*

Normal appearance of the stomach, duodenum, small intestine, ileo-cecal junction, and colon with no loss of layering, 1:3 muscularis to mucosa ratio, normal wall thickness and peristaltic activity, and no distension of the lumen. Fecal material present within the colon.

## *Pancreas*

Visible section presents normal size and echogenic appearance. Regular capsule. Normal echogenic appearance of the mesentery and fat surrounding the pancreas.

## *Free Abdomen*

Normal mesenteric lymph nodes.

No ascites evident.

## ULTRASONOGRAPHIC FINDINGS

- Splenic pathology(?)
- Urinary bladder sediment.
- Gallbladder sediment.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Etiologies for the splenic changes would be extramedullary hematopoiesis secondary to the anemia, reactive hyperplasia, splenitis, or possibly infiltrative neoplasia.

Etiologies for the urinary bladder sediment would be incidental debris, crystalluria, and possibly bacterial cystitis.

The gallbladder sediment can be considered an incidental finding.

Although the stomach appears ultrasonographically normal, with the low-grade anemia, ulcerative disease should still be considered.

Further assessment would be to repeat FNA cytology of the spleen, urinalysis, possibly urine culture, and possibly gastroscopy with biopsies.

A splenectomy may be required for a final etiological diagnosis.

Specific therapy would be dependent on an etiological diagnosis.



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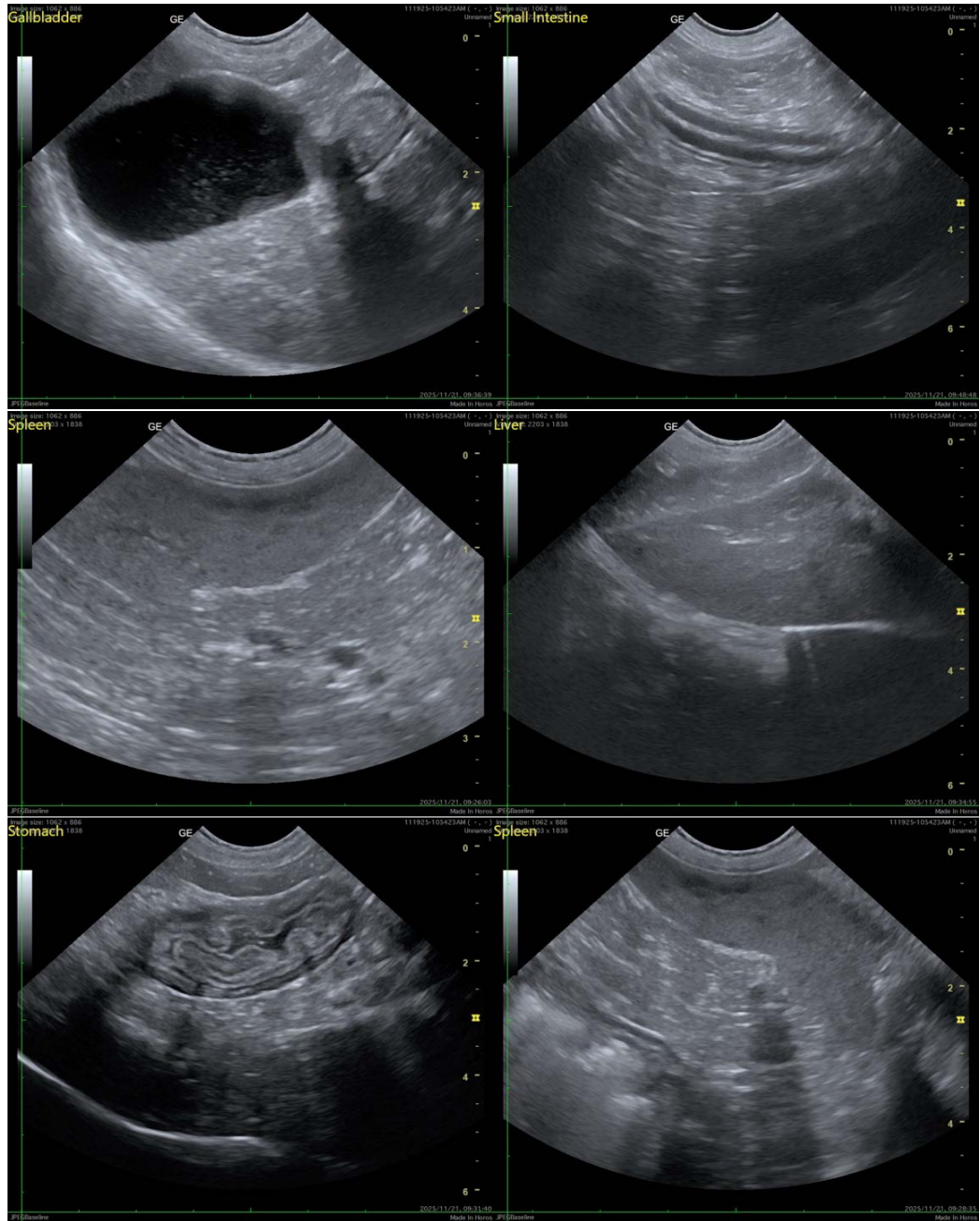
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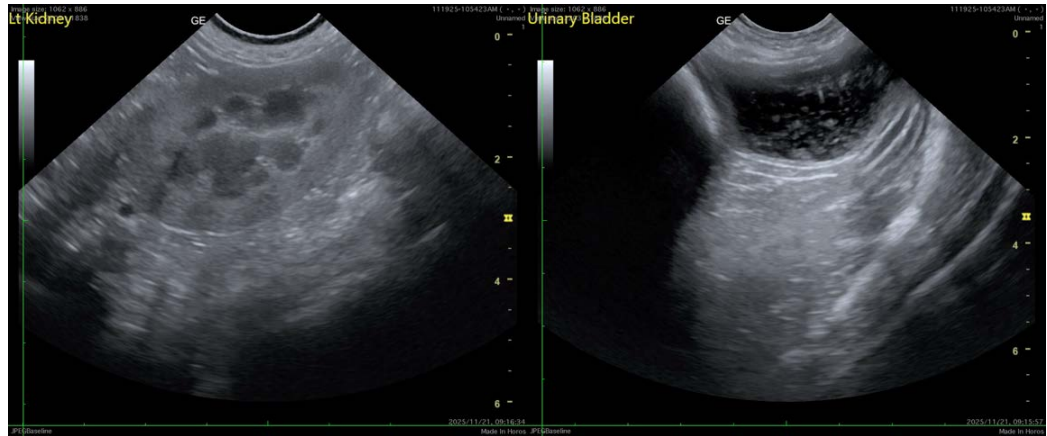
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Remo Lobetti, BVSc, MMedVet (Med), PhD, Dipl. ECVIM (Internal Medicine)

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