



**PATIENT**

Myah Turpin

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

73 Pounds

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY**

Dr. Jennifer Todd

**HOSPITAL NAME**

Lamb's Gap AH

**REFERRING VET**

Dr. Jennifer Todd

**INVOICE**

14020

**DATE**

10/26/21

**PRESENTING CLINICAL SIGNS**

History: Myah is a twelve-year-old, FS, Labrador Retriever who presented today for a four-day history of decreased appetite and pale gums. She has pre-existing osteoarthritis and laryngeal paralysis as well as chronic mild liver enzyme elevations. On exam today, Myah was pale, had increased respiratory rate at rest and no fever. Abdominal palpation was normal. CBC in-house showed severe anemia which is regenerative-see attached pdf. No autoagglutination on saline slide is seen. Abdominal ultrasound is performed to determine cause of anemia. Prednisolone 2 mg/kg IM was given and whole blood sent to lab for path review of CBC to look for spherocytes.

Abnormal PE/Chem/CBC/UA Results:

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Aortic trifurcation was normal without evidence of sublumbar or medial iliac lymphadenopathy.

Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.9 cm in length. The right kidney measured 7.4 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.6 cm length X 0.82 cm width at the caudal pole.

The right adrenal gland was not definitively visualized and not overtly associated with the unspecified nodular lesion in the area of the right pancreatic limb medial to the duodenum.

**Spleen**

The spleen exhibited overall normal size and contour with generalized parenchyma heterogeneity with overall normal splenic parenchyma echogenicity. Solitary subtly expansive hypoechoic nodular lesion was noted in the cranial spleen with mild associated cranial splenic asymmetrical capsule contour. Concurrent hyperechoic to subtly shadowing nodular lesions noted adjacent to the hypoechoic cranial splenic nodular lesion. Regional reactive mesentery noted around the cranial spleen.

**Liver**

The liver was mildly enlarged in size. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.



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***Gastrointestinal***

Myah Turpin

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild echogenic, non-shadowing ingesta without signs of obstruction or foreign material. The stomach wall was otherwise sonographically unremarkable. The gastric body wall measured 0.46 cm. Overt evidence of shadowing echoes within the gastrointestinal tract were not evident as well as no evidence of mechanical or metabolic gastrointestinal ileus. The presence of gastric ingesta was non-specific yet may correlate with recent meal ingestion or some degree of gastric stasis if documented NPO.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The small intestinal measured 0.44 cm.

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Normal visible colon wall layers were present with apparent formed feces in lumen.

***Pancreas***

**AGE**

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The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. Solitary non-specific nodular lesion was noted medial to the duodenum in the area of the right pancreatic limb, measuring 2.2 cm in diameter. This nodular lesion exhibited mild non-homogeneous echogenicity.

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***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

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***Other***

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A rapid view of the heart revealed no evident pathology.

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**ULTRASONOGRAPHIC FINDINGS**

- Hypoechoic cranial splenic nodular lesion-suspect acute infarct with associated areas of splenic mineralization, myelolipomas or hyperplasia, potential for cranial splenic hematopoiesis, focal splenitis or neoplasia. Adjacent hyperechoic splenic parenchymal nodules and associated regional reactive peri-splenic mesentery
- Hepatopathy- subjectively chronic
- Mild chronic renal changes
- Unspecified nodular lesion in the area of the right pancreatic limb medial to the duodenum- Pancreaticoduodenal lymph node, non-specific pancreatic parenchymal nodule or other possible

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Coagulation panel recommended give the suspected cranial splenic infarct. Hepatosplenic FNA and FNA of the unspecified nodule in area of the right pancreas, if accessible, would be ideal in this patient to assess for potential underlying pathology or neoplasia yet may be precluded given the degree of anemia. Having said that, the hepatosplenic changes may be benign while the nodular lesion in the area of the right pancreas is nonspecific. Overall, an obvious cause of the patients' severe anemia was not definitively evident i.e., no overt intraabdominal masses. Further assessment may include pending

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CBC pathology review, infectious disease serology if clinically indicated, three view chest radiographs to rule out occult thoracic pathology (abdominal radiographs may also be considered to rule out non-obvious metallic foreign body) while the possibility of bone marrow assessment (if anemia can be stabilized) may be indicated.

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**IMHA/Infectious Anemia/Thrombocytopenia/Evans Syndrome**

(Note: ensure no underlying neoplasia as IMHA/Evans syndrome can occur as paraneoplastic manifestation especially in lymphoma/round cell neoplasia)

**BREED**

Labrador Retriever

Anemia +/- thrombocytopenia with spherocytes/autoagglutination in dogs and hyperbilirubinemia, bilirubinuria. (NOTE: cats do not get spherocytes in IMHA)

Consider Onion/Garlic derivative ingestion if Heinz bodies present.

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Spayed Female

**Prednisone (K9) Prednisolone (Feline):** 2 mg/kg Sid/Bid initially x 3 weeks then attempt taper

**Aspirin** 0.5 mg/kg Sid owing to hypercoagulable state

**Sucralfate** 0.5-1 g po tid dogs, 0.5 g bid cats in slurry

**Doxycycline** if infectious suspected clinically or based on CBC path review:

**Dogs, Cats:** 10 mg/kg p.o. q24h with food or water bolus in cats

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**Long-term management dogs:** Azothiaprine 2 mg/kg Sid or Cyclosporine 10mg/kg po sid bid

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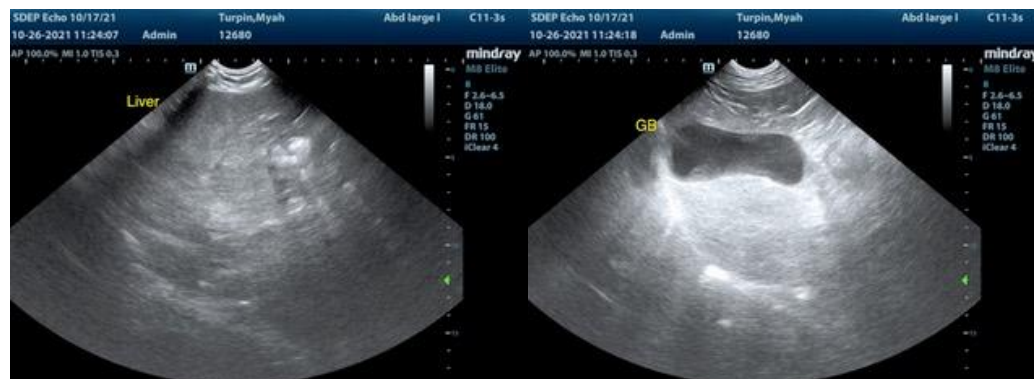
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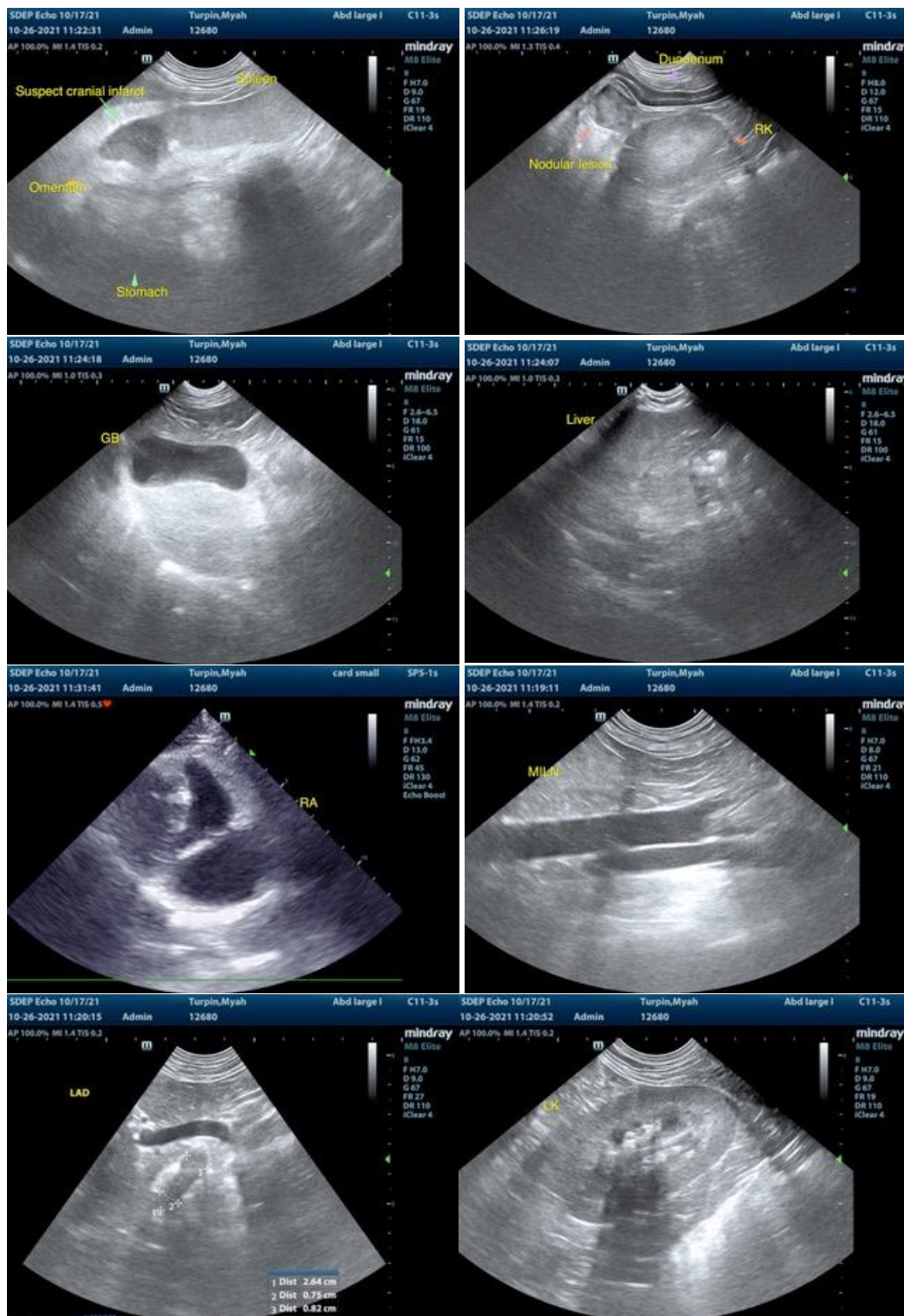
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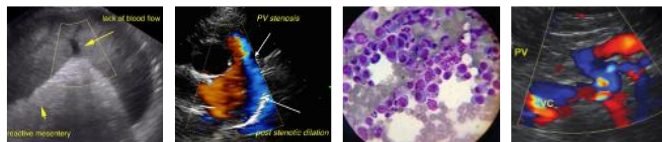
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
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