



**PATIENT**

Jack Ferko

**SPECIES**

Canine

**BREED**

Boerboel

**SEX**

MI

**AGE**

4 years 10 months

**WEIGHT**

132 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

John Ammeraal DVM

**HOSPITAL NAME**

Sova AH

**REFERRING VET**

John Ammeraal DVM

**INVOICE**

13306

**DATE**

2/11/22

**PRESENTING CLINICAL SIGNS**

Presenting from ER service . Past 4-5 days very lethargic, anorexic. Depressed weak on exam, Abnormal PE/Chem/CBC/UA Results: QAR, BW from rDVM 2/10- Jaundiced, HCT 18% BUN : 96mg/dL , Crea 1.9 mg/dL phos, 7.9 mg/dL ALT 149 u/L ALKP 673 U/L , Tbili: 3.8mg/dL Need UA to com PCV 18% today Temp 101.0

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and cystourethral junction 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 was noted.

The prostate was of expected size and presentation for a young intact male canine.

Several medial iliac lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example lymph node measured 1.0 cm diameter.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex. Minor pyelectasia was noted in the right kidney. The left kidney measured 10.0 cm in length. The right kidney measured 10.7 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 0.74 cm width at the caudal pole. The right adrenal gland was indistinctly visualized owing to patient size without overt pathology, measuring 0.94 cm width at the caudal pole.

**Spleen**

The spleen exhibited generalized enlargement with mild asymmetrical to rounded medial capsule contour and generalized mild parenchyma heterogeneity. No splenic masses or nodules were noted. Normal splenic vascularity was present.

**Liver/ Gallbladder**

The liver was moderately enlarged with mild hypoechoic hepatic parenchyma exhibited mild coarse echotexture Increased portal vein prominence was evident. The capsule of the liver was normal in margination. Distinct masses or nodules were not evident. The hepatic and portal vasculature were normal in appearance. No hepatic masses or nodules were noted. The gallbladder was non-distended in size with mildly prominent to hyperechoic gallbladder walls containing anechoic content. The cystic and common bile ducts were normal.



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***Gastrointestinal***

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The stomach exhibited visualized intact and sonographically unremarkable wall layering with a normal wall layer ratio. No overt evidence of gastric mural hypertrophy, loss of intestinal wall layering, areas of ulcerations, or gastric masses were noted. The stomach contained a moderate amount of retained anechoic fluid along with nonshadowing chyme and luminal gas. The gastric body wall width measured 0.60 cm.

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The jejunum wall width measured 0.42 cm. No overt mechanical / metabolic ileus, shadowing foreign material, loss of intestinal wall layering, overt ulceration, or intestinal masses were noted.

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

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***Pancreas***

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

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***Free Abdomen***

Generalized mild reactive mesentery was present. No evidence of omental lymphadenopathy or peritoneal effusion was noted.

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**ULTRASONOGRAPHIC FINDINGS**

- Splenomegaly with generalized nonhomogeneous parenchyma - hyperplasia, hematopoiesis given the anemia, incidental splenitis, neoplasia possible
- Hepatomegaly exhibiting mild parenchyma hypoechogenicity - metabolic / reactive / vacuolar hepatopathy and nonobstructive cholestasis given the ALP elevation with potential for primary or concurrent acute hepatitis (viral, bacterial, leptospirosis, toxin, etc.), given the ALT elevation, occult hepatic neoplasia cannot be excluded
- Hypomotile stomach with retained fluid / chyme
- Mild right kidney pyelectasia - nonspecific, potentially owing to mild pelvic scarring, IV fluid therapy in this case, or incidental
- Mild nonspecific medial iliac lymphadenopathy - not overtly suggestive of neoplastic criteria, hyperplasia, minor reactive lymphadenitis likely with possible neoplasia considered less likely at this time

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Assuming normal clotting status and platelets, hepatosplenic FNA using a 25-gauge needle is warranted for screening cytology. Abdominal radiographs to rule out gastrointestinal metallic foreign body if evidence of hemolysis may be considered.

The kidneys did not appear to be end-stage with potential for prerenal azotemia pending urinalysis. Leptospirosis titers / urine, blood PCR may be considered if clinically indicated.



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

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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.

**BREED**

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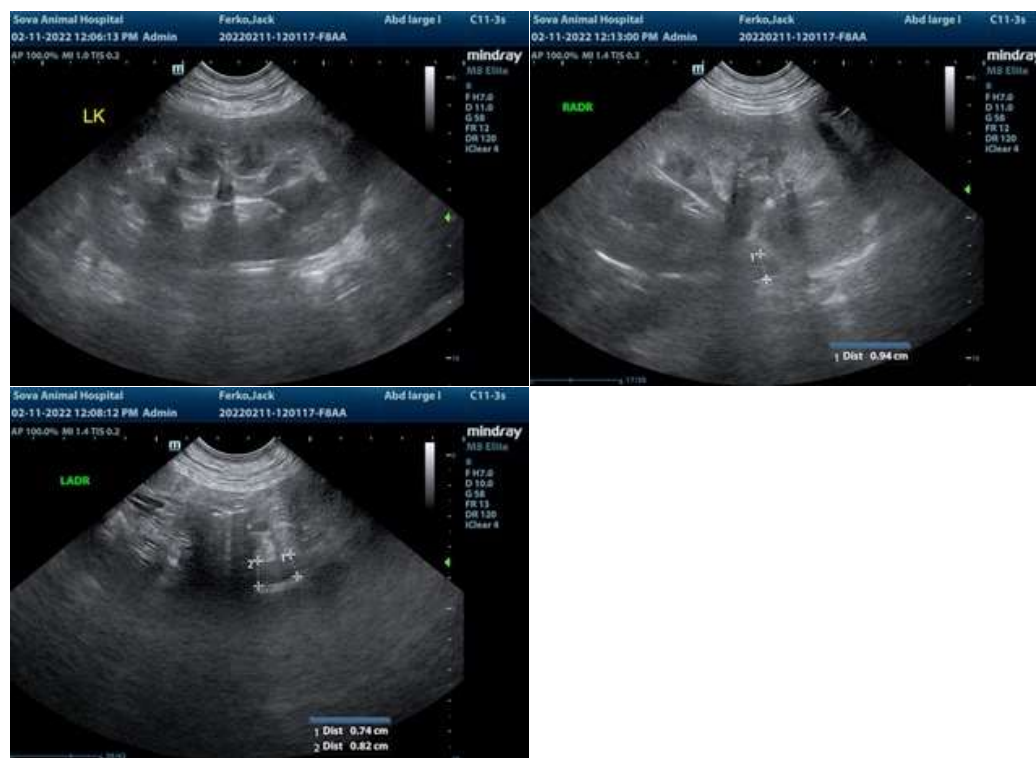
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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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