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Clinical Sonography & Telecytology
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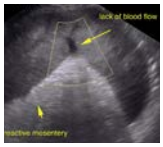
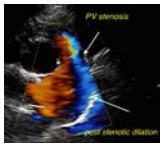
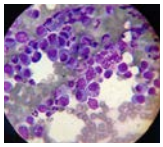
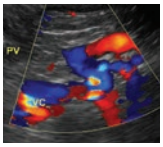

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1-800-838-4268 info@sonopath.com

PATIENT
Champ Rango

SPECIES
Canine

BREED
Rottie

SEX
Neutered Male

AGE
6 Years

WEIGHT
114.2 Pounds

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY
Dr. Joan Gramazio

HOSPITAL NAME
Shohola Vet Hospital

REFERRING VET
Dr. Livia Demeo

INVOICE
44750

DATE
8/17/23

PRESENTING CLINICAL SIGNS

On gaba and traz orally before ultrasound but was not fasted O feed this morning. Weight loss past 4-6 months, progressive anemia and lethargic. R/O renal disease vs blood loss.

Abnormal PE/Chem/CBC/UA Results: RBC 3.91 (5.39 - 8.70 M/µL) Hematocrit 26.9 (38.3 - 56.5 %) Hemoglobin 9.0 (13.4 - 20.7 g/dL) Reticulocyte Hemoglobin 21.2 (24.5 - 31.8 pg) Neutrophils 13.689 (2.94 - 12.67 K/µL) Eosinophils 1.716 (0.07 - 1.49 K/µL) SDMA 15 (0 - 14 µg/dL) Creatinine 2.2 (0.5 - 1.5 mg/dL) Sodium 140 (142 - 152 mmol/L) Albumin 1.9 (2.7 - 3.9 g/dL) Albumin: Globulin Ratio 0.5 (0.7 - 1.5) AST 77 (16 - 55 U/L) Cholesterol 119 (131 - 345 mg/dL) Creatine Kinase 460 (10 - 200 U/L) Urine pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size and shape, measuring 2.19 cm. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (7.1 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.99 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect is visualized.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect is visualized.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

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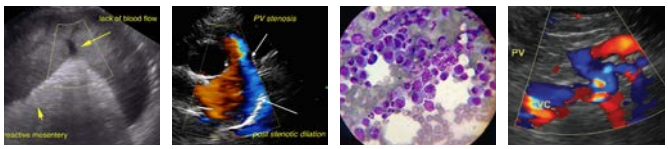

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Liver

The liver is subjectively normal in size, and mildly heterogeneous with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains moderate/large shadowing ingesta. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed. *The large amount of shadowing ingesta hinders full evaluation of the stomach.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal to mild fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.43 cm. Jejunum wall measures 0.38 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Hypoechoic, mildly heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy. The significance of this is uncertain if liver enzyme values are normal.

- Large, shadowing ingesta within the stomach and some mildly fluid distended areas of small intestine – Findings are most consistent with a non-fasted patient. Shadowing ingesta hinders evaluation of some areas of the gastrointestinal tract.

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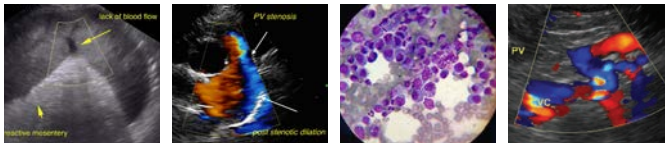

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

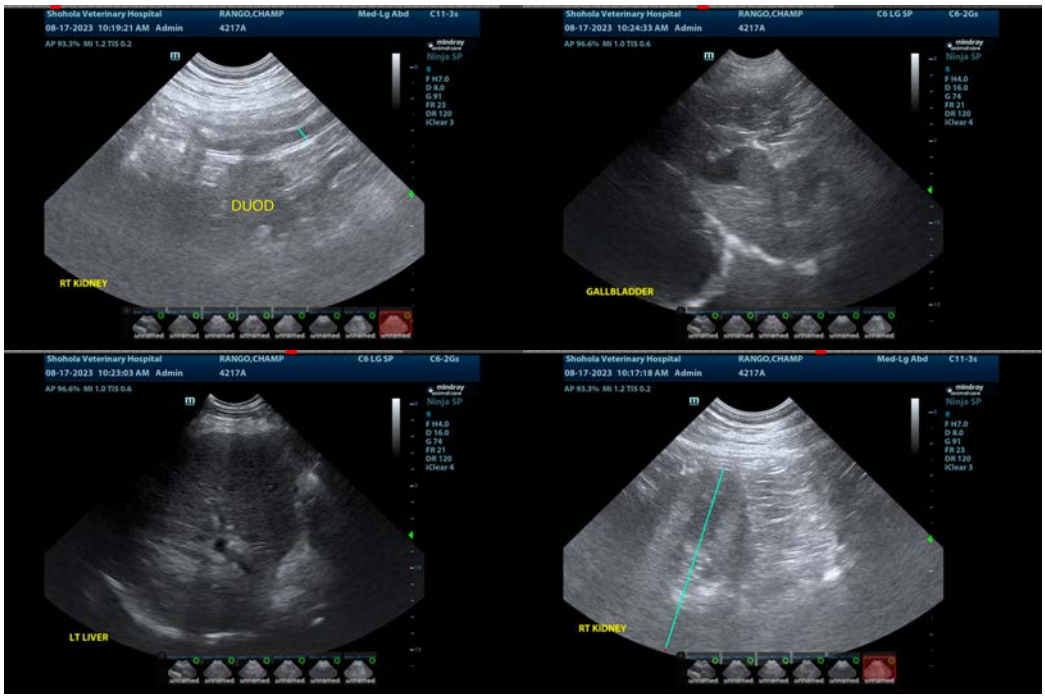
No focal lesions are visualized associated with the GI tract to explain the weight loss and low albumin levels. Additionally, the kidneys appear relatively normal in shape. Underlying renal disease or dysplasia cannot be ruled out based on relatively normal appearing kidneys on ultrasound. There is no evidence of pelvic dilation, stones, etc.

Recommend further workup to try and identify the source of the hypoalbuminemia. Recommend a urine protein to creatinine ratio and a urinalysis, looking for evidence of proteinuria, as well as a liver function test and a GI panel to Texas A&M for qualitative PLI, TLI, cobalamin and folate, looking for evidence of underlying gastrointestinal disease, and additionally clinical evaluation looking for melena as an indicator of possible GI bleeding.

Additionally recommend screening for Addison's disease, as this can cause the described biochemical changes.

If underlying renal disease and liver disease are ruled out based on the above recommendations, then considered possible underlying gastrointestinal disease. Options would include repeat imaging in a fasted patient or upper GI endoscopy looking for any evidence of gastric or proximal duodenal lesions, as a scope cannot evaluate the entire GI tract in a dog this large. If underlying gastrointestinal disease is thought extremely likely and endoscopy is normal, surgical biopsies may be necessary to evaluate the more distal GI tract.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.



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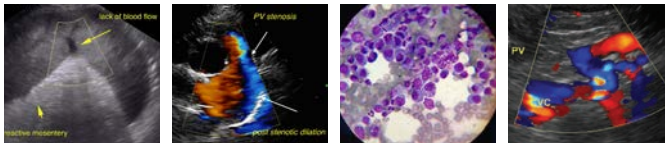

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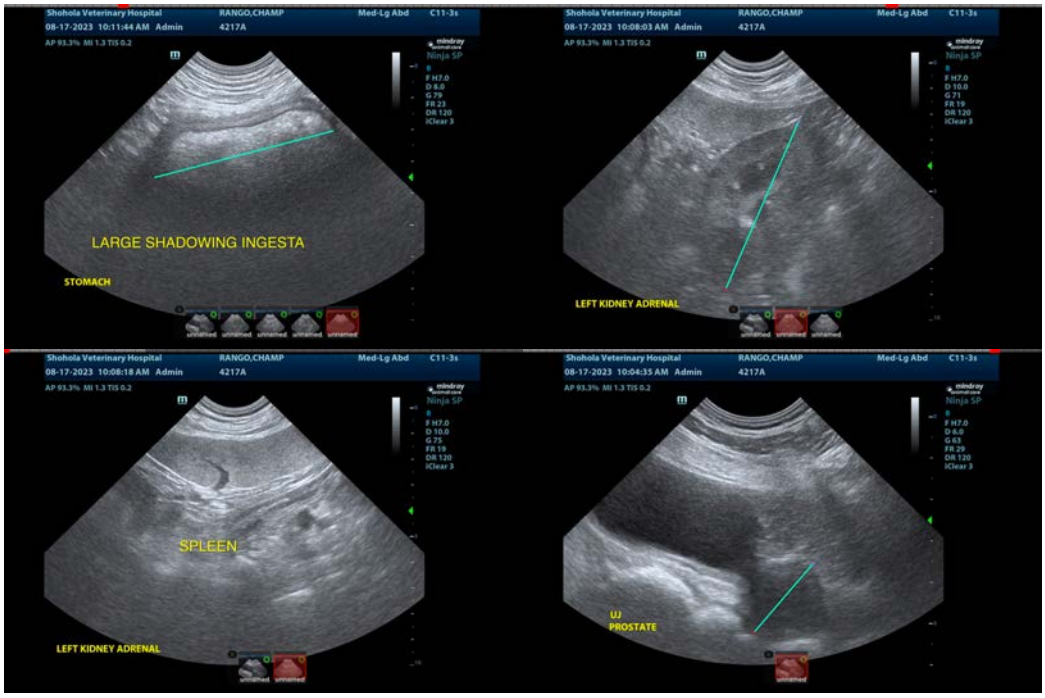

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

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