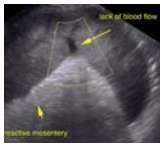
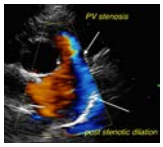
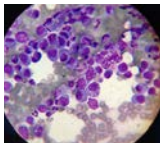
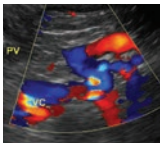
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Lucca Perez

SPECIES
Canine

BREED
Poodle X

SEX
Male

AGE
1 Year

WEIGHT
16

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Reyes

HOSPITAL NAME
Mobile Vet Ultrasound

REFERRING VET
Dr. Santiago

INVOICE
46573

DATE
4/11/23

PRESENTING CLINICAL SIGNS

Pet had a positive antigen Giardia test in 09/22, since then, he has had diarrhea or soft stools per owner. After a few months, Giardia antigen came back negative but clinical signs persisted. Pet was switched to Purina EN with not improvement. No weight loss or any other clinical signs. Diarrhea responds to Metronidazole and probiotics

Abnormal PE/Chem/CBC/UA Results: Eosinophils: 1.821, normal up to 1.49 Rest nsf including lytes, T4 and fecal floatation.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Prostate is normal in size for an intact male (2.4 cm wide). Parenchyma is diffusely homogenous and relatively hyperechoic. Normal distinct margins and symmetrical bilobed shape are maintained.

The right kidney is normal in size (4.5 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (4.0 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

Adrenal glands are small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland is unable to be fully visualized. The right adrenal gland measures 0.39 cm at the cranial and 0.32 cm at the caudal pole.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

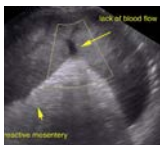
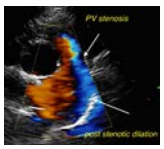
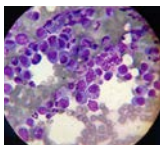
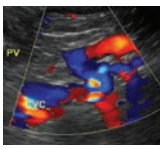
Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. However, given the reported history of fasting, delayed gastric emptying could be considered. Soft (cloth) fluid absorbing foreign material is

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considered less likely but cannot be definitively ruled out. If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Flat adrenal glands** – This can be a normal patient variant and/or a sign of exogenous cortisol administration. If exogenous steroids are not being administered, hypoadrenocorticism (either relative or absolute) should be considered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of this patient's adrenal glands are likely a normal young patient age variant. However, given the reported clinical signs, a baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

Further evaluation of an underlying maldigestive or malabsorptive condition and/or other infectious diseases that may be contributing to persistent clinical signs beyond resolution of the reported giardia is recommended, beginning with a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory and a fecal enteropathogen PCR panel to Texas A&M GI Laboratory. Contact Texas A&M GI Laboratory for recommendations regarding how long to discontinue antibiotics prior to submission of stool for the PCR panel.

In the meantime, if not already performed, empirical deworming with a 5-day course of Panacur is recommended. Additionally, a probiotic such as Visbiome or Proviable is recommended to help reestablish normal GI flora, and if tolerated, transition in diet (based on trial and error response) beginning with a hydrolyzed protein diet should be considered. Some patients respond better to one brand or version of hydrolyzed protein diet versus another, so several trials are sometimes necessary.

Ultimately, if a diagnosis is not obtained, and clinical signs persist, a fecal transplant could be considered and/or GI endoscopy for further visual evaluation and biopsy of the GI tract.

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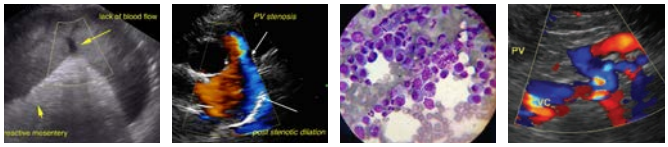

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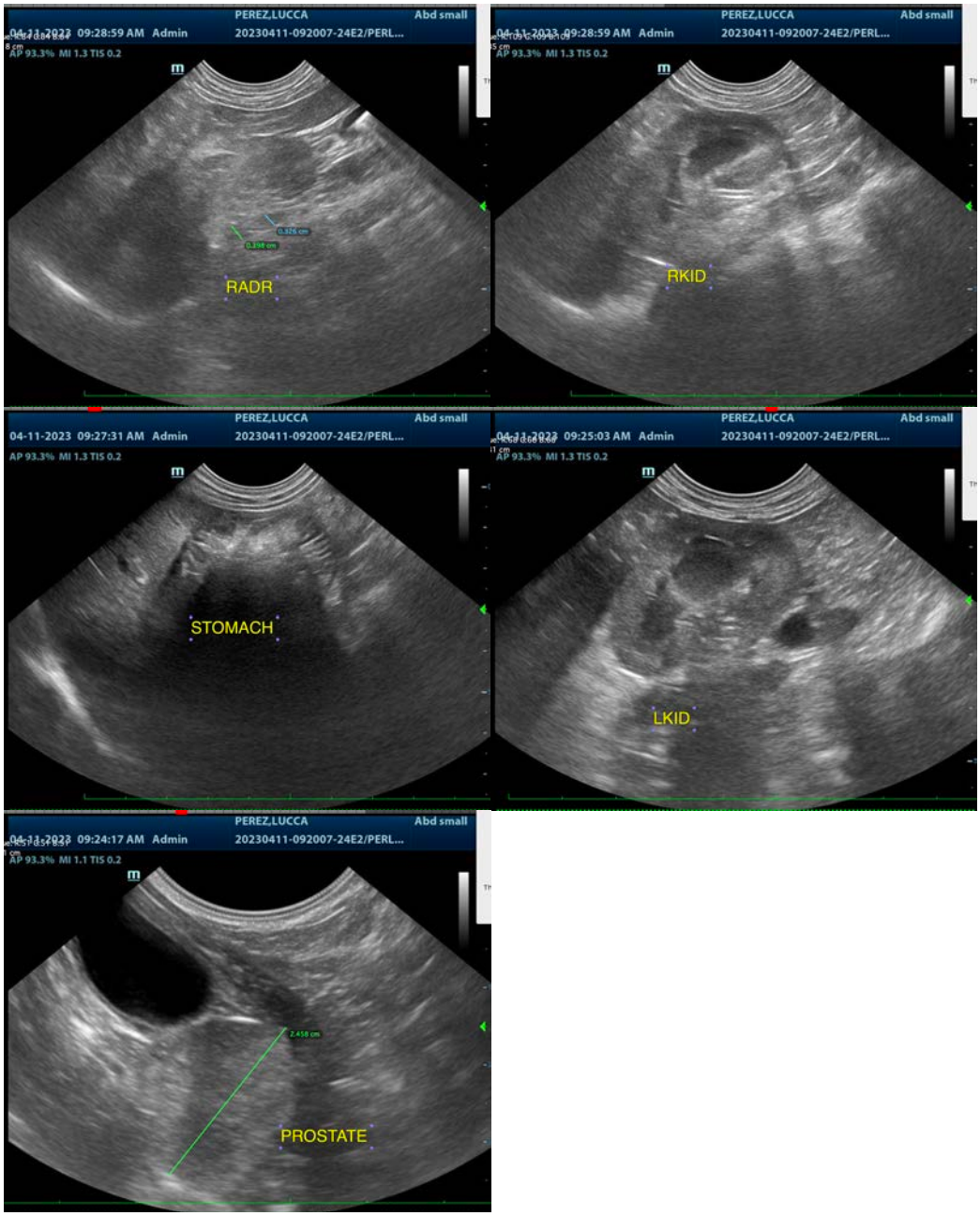

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com