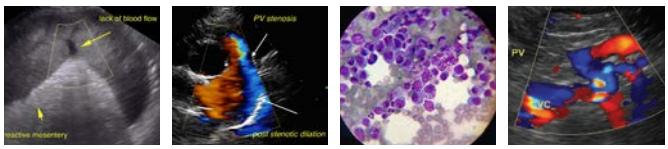
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Luka Morrison

SPECIES
Canine

BREED
Chihuahua X

SEX
Spayed Female

AGE
2 Years

WEIGHT
1.7 kg

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Donna Markland

HOSPITAL NAME
Island Mobile Paws Vet Services

REFERRING VET
Central Island Vet Emergency Hospital

INVOICE
40190

DATE
8/5/22

PRESENTING CLINICAL SIGNS

Admitted to emergency on 7/31 with a history of severe GI upset/suspected toxicity (unknown toxin). PE was unremarkable. Luka has been on supportive IV fluids and is fed with an esophagastomy tube. IV fluids are at 3X maintenance. Feeding tube is trickle feeding full RER. Drug therapy is ampicillin, 22 mg/kg IV q 8 hr, baytril, 5 mg/kg IV q 12 hr, cerenia, 1 mg/kg IV q 24 hr, metronidazole 10 mg/kg IV q 12 hrs, pantoprazole 1 mg/kg q 24 hrs, sucralate 1 mL PO q 8 hrs, and dextrose boluses as needed. Since admission, Luka has developed neutropenia and anemia. SDMA is elevated with a low creatinine. SDMA is trending upwards in spite of fluid therapy. Both the neutropenia and the leukopenia are trending down. There is a mildly low Cl, TP, and albumin.
Abnormal PE/Chem/CBC/UA Results: Please see attached as there are multiple days of results.

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.

The right kidney is normal in size (2.86 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 (2.95 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 right adrenal gland measures 0.90 cm long x 0.31 cm at the cranial pole and 0.15 cm at the caudal pole. The left adrenal gland measures 1.32 cm long x 0.22 cm at the cranial pole and 0.31 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 stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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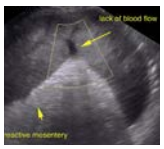
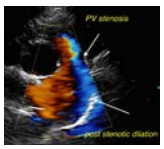
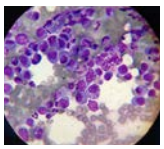
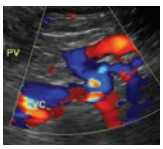

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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine 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. It is moderately distended with echogenic fluid and otherwise what appears to be normal formed feces.

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

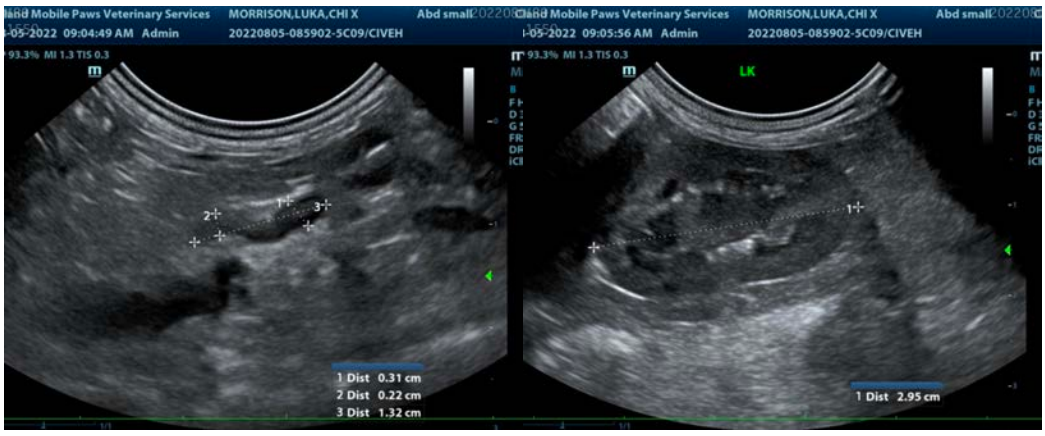
- **Flat adrenal glands** – This can be a normal patient variant and/or a sign of exogenous cortisol administration. If exogenous steroids are not being administered, hypoadrenocorticism (either relative or absolute) should be considered.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are no specific ultrasonographically visible explanations for this patient's clinical signs or laboratory changes. Differentials to consider include viral disease such as parvo versus toxin, as is reportedly suspected.

A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

Ultimately, if this patient continues to decline, and a diagnosis cannot be determined, and neutropenia persists, bone marrow cytology could be considered.



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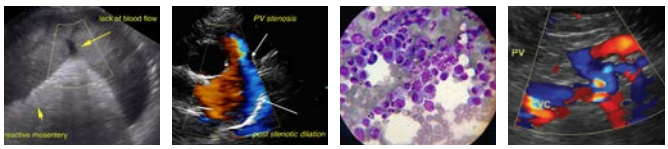

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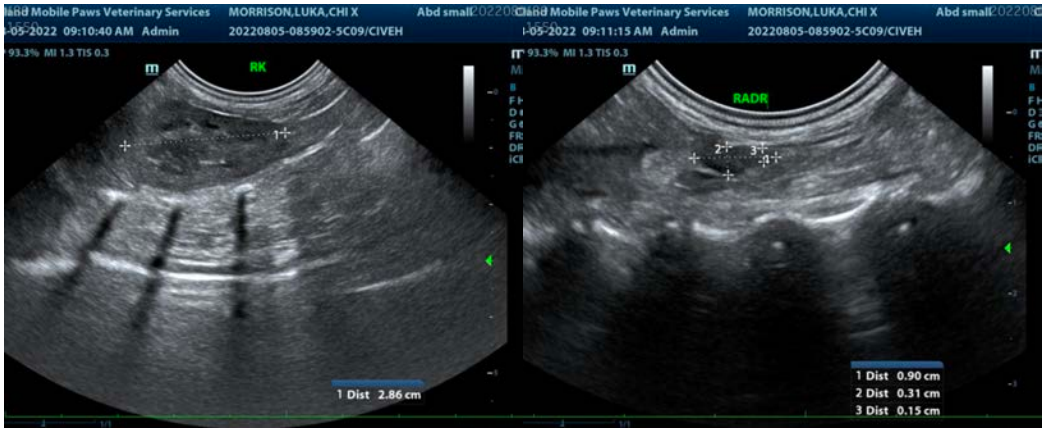

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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