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Clinical Sonography & Telecytology
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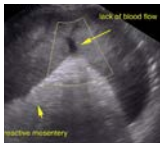
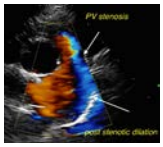
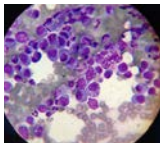
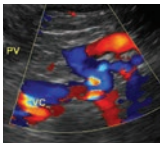





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Buddy Suter

SPECIES

Canine

BREED

Pomeranian X

SEX

Neutered Male

AGE

7 Years

WEIGHT

15

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Danielle Lanz

HOSPITAL NAME

New Holland VH

REFERRING VET

Dr. Danielle Lanz

INVOICE

45563

DATE

2/28/23

PRESENTING CLINICAL SIGNS

P presenting for diarrhea for the past 3 weeks, no change with metronidazole, bland diet, etc. Anorexia and vomiting for the past 2 days, PD but no appetite.

Abnormal PE/Chem/CBC/UA Results: Cranial abdominal mass palpated. Mass effect on abdominal radiographs CBC: Neutrophils 21.063 (H), Lymphocytes 0.44 (L) Monocytes 1.584 (H) Chem: Glucose 58, Ca 8.2, NA 135, Cl 102, Albumin 2.2, ALT 15, AST 72, ALP 242 Lipase 582, CK 466, Osmolality 288 T4: <0.4

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 prostate is unable to be well visualized in these images.

The right 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.

The left kidney is normal in size (4.37 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

The right adrenal gland is unable to be well visualized in these images.

The left adrenal gland is normal in size (0.40 cm at the cranial pole and 0.52 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

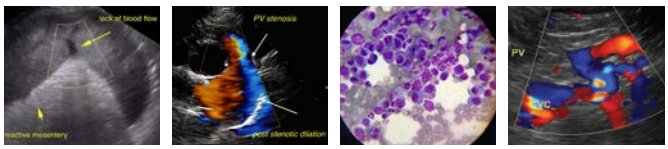
Liver

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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Diffusely, 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. However, in the mid abdomen, there is a focal bowel loop with a concentrically thick wall and hypoechoic loss of layering. The wall measures approximately 0.5-0.7 cm thick.

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

In the mid cranial abdomen, there is a 3.0 cm x 5.0 cm heterogeneous, primarily hypoechoic, round mass that appears to be made up of heterogeneous hypoechoic irregular lymph nodes, enhanced hyperechoic mesenteric fat and free fluid. However, given location, an extension of the bowel mass or even partial involvement of the pancreas can't be definitively ruled out.

ULTRASONOGRAPHIC FINDINGS

- **Scalloped spleen –** can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.
- **Bowel mass –** concerning for infiltrative neoplasia such as round cell neoplasia or potentially a leiomyosarcoma. A benign leiomyoma and/or other benign infiltrative disease is considered less likely, given the lymphadenopathy, etc. beyond the mass.
- **Cranial abdominal mass** – This appears to be enlarged lymph nodes, most concerning for infiltrative or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.
- **Free fluid and enhanced mesenteric fat** – suggestive of a focal peritonitis around the bowel mass and enlarged lymph nodes, combined with likely contribution from the reported hypoalbuminemia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

Fine needle aspirates of the mass/enlarged lymph nodes +/- the focal bowel mass are all recommended if patient's coagulation status is appropriate. Alternatively, if the patient is stable to undergo surgery, an exploratory laparotomy for planned mass removal, possible resection and anastomosis, etc. could be pursued.

Given the lack of ability to definitively identify what part of bowel and/or surrounding organs are involved with these images, if surgery is pursued, consultation with a veterinary surgeon is recommended, as well as potentially a pre-surgical planning abdominal CT scan.

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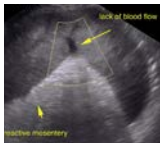
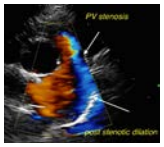
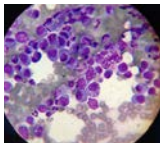
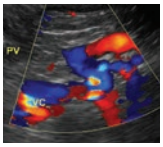

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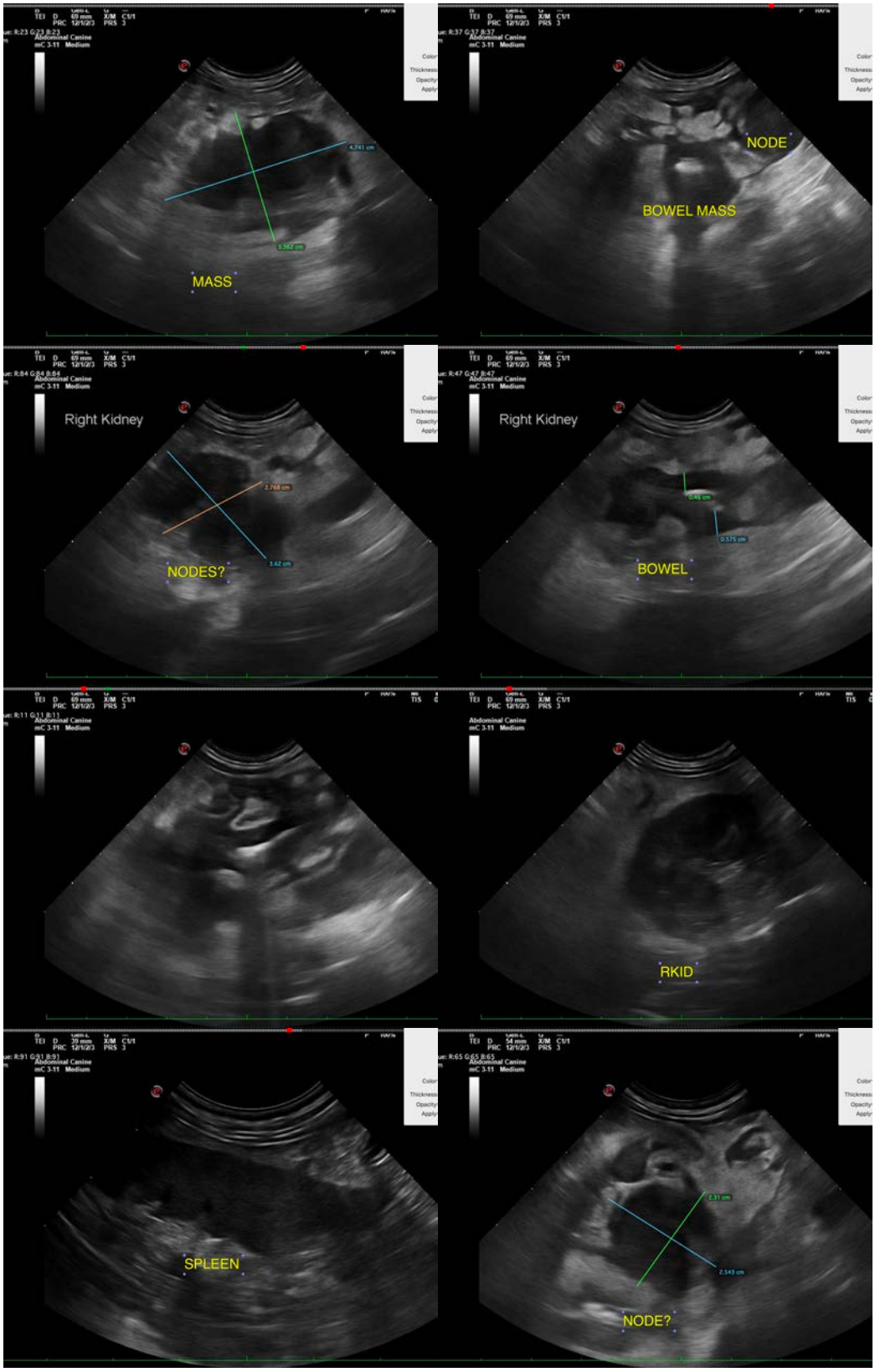

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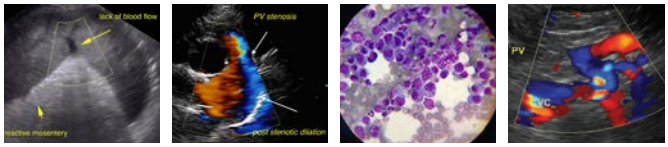

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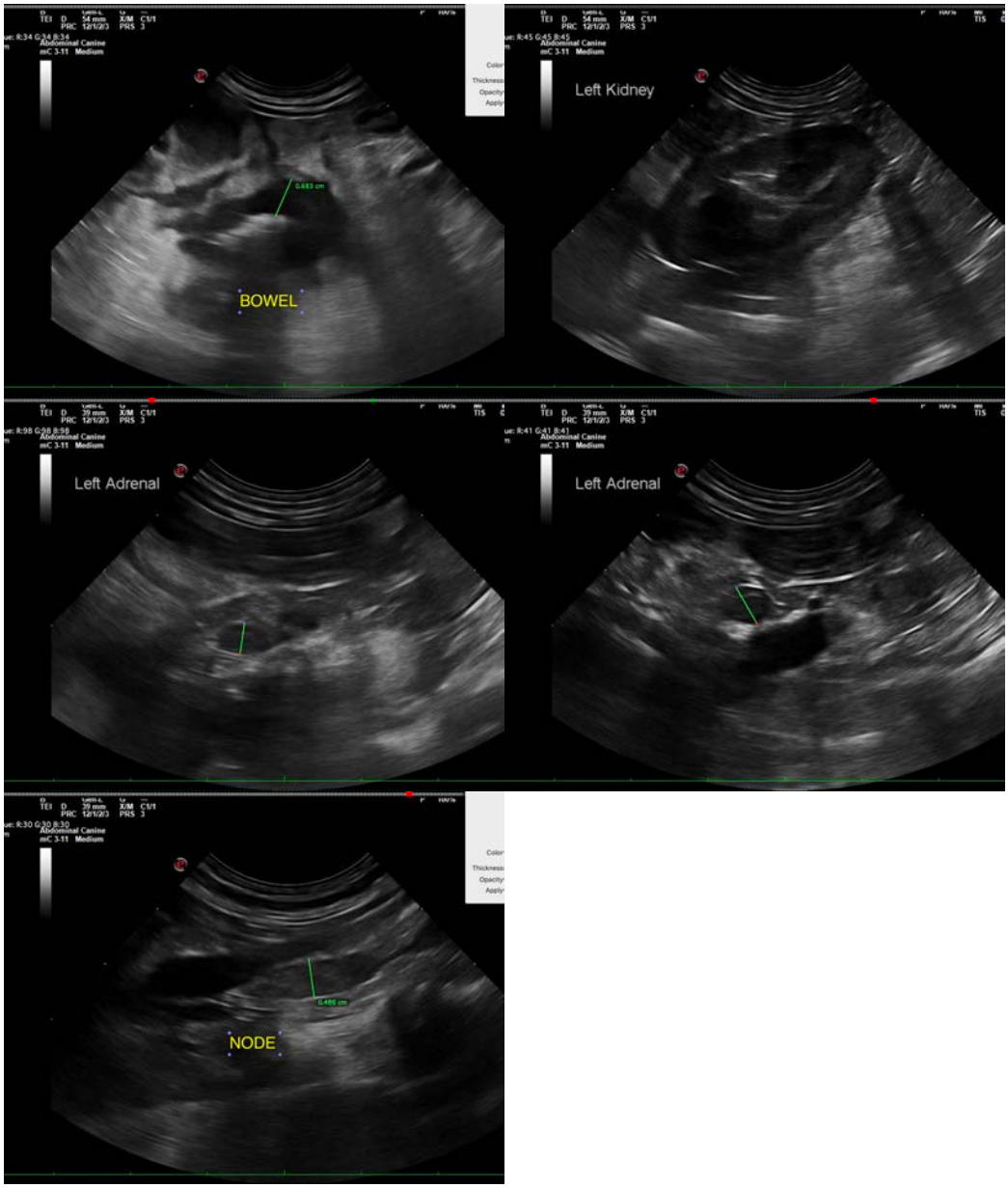

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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