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Clinical Sonography & Telecytology
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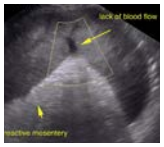
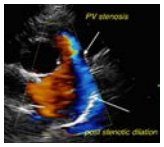
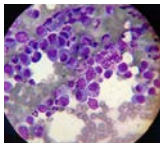
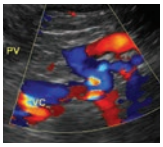

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1-800-838-4268 info@sonopath.com

PATIENT
Dash Hijellming

SPECIES
Canine

BREED
Dachshund

SEX
Neutered Male

AGE
11 Years 10 Months

WEIGHT
13 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Jessie Evoniuk

HOSPITAL NAME
State Ave Vet

REFERRING VET
Dr. Jessie Evoniuk

INVOICE
39504

DATE
7/14/22

PRESENTING CLINICAL SIGNS

QAR. mm pale pink. CRT <2s. Heart no overt murmur. Lungs clear. Teeth- G2 calculus, multiple missing. Abd tense .BCS 5/9 Skin and coat appear healthy. SM LN WNL. No other notable LNS. T 101.9 CBC anemia Chem mild elevated BUN FAST abd scan- no free blood Anemia- RO blood loss (mass, GI, other) vs autoimmune vs anemia of chronic disease collapse- RO secondary to blood loss vs syncope vs heart disease vs other Hx of seizures
Abnormal PE/Chem/CBC/UA Results: CBC: RBC: 4.54 HGB 8.2 Hct 26.82 MCV 59 MCH 18 MCHC 30.5 Plt 120 Chem: Bun: 27

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 (neutered) is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (4.7 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted.

The left kidney is normal in size (3.9 cm) and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased echogenicity and mild loss of corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted.

Adrenal Glands

The right adrenal gland is normal in size (1.3 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.

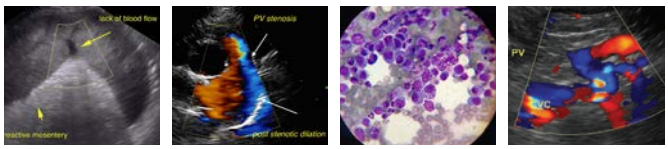
The left adrenal gland is normal in size (0.47 cm at the cranial pole and 0.55 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The 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.



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The gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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.

In the mid left abdomen, there is a focal section of bowel that appears hyperperistaltic, characterized by corrugation. The area around the bowel is mildly enhanced with hyperechoic fat and tissue. Contents appear to be normal granular ingesta/chyme. However, there is a small density with an acoustic shadow that does not appear obstructive, but could be consistent with a small non-obstructive foreign body or foreign material.

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.

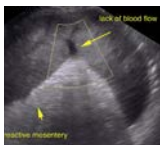
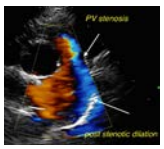
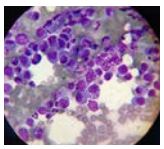
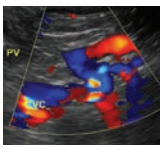
PRIMARY FINDINGS

- Focal loop of bowel mid abdomen that is corrugated in appearance with evidence of focal peritonitis surrounding it and an irregular, hyperechoic mucosal – differentials include parasitic disease, infectious disease, benign inflammatory disease, and/or even infiltrative neoplasia can't be ruled out. Foreign material is possible, but considered less likely, given the lack of an obstructive pattern.

- 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.

SECONDARY FINDINGS

- Gallbladder debris – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial

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abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

- Age related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Differentials for this patient's anemia still include loss versus hemolysis (if it is a regenerative anemia), or even if it is not regenerative anemia, early loss or hemolysis are differentials. Given the mildly high BUN and the focal appearance of the bowel loop reported here, a gastrointestinal bleed is considered at least partially responsible. Therefore, recommendations include:

- Fecal exam followed by empirical deworming with a 5-day course of Panacur
- Therapy for gastroenteritis/hemorrhagic gastroenteritis with antiemetics, antacids such as Omeprazole, and Sucralfate.
- Given the appearance of the spleen, a reaction of the GI tract to an infiltrative disease such as mast cell tumor has to be considered and/or concurrent autoimmune disease resulting in anemia. Regardless, the recommendation is to aspirate the spleen, if patient's coagulation status is appropriate, and to pre-medicate with Diphenhydramine, in case of mast cell tumor.
- If a diagnosis is not obtained cytologically from a splenic aspirate, and clinical signs/anemia does not improve with the management of a suspect gastrointestinal bleed, recheck abdominal imaging (fasted) of the focal bowel loops is recommended to further evaluate possible early emerging neoplasia.
- If a GI bleed is confirmed via the presence of blood and/or melena in the stool and it doesn't improve with medical management, gastroscopy/endoscopy/colonoscopy is recommended for further evaluation of the GI mucosa and biopsies.

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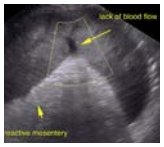
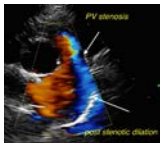
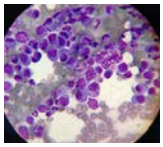
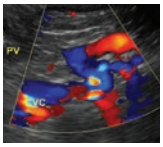

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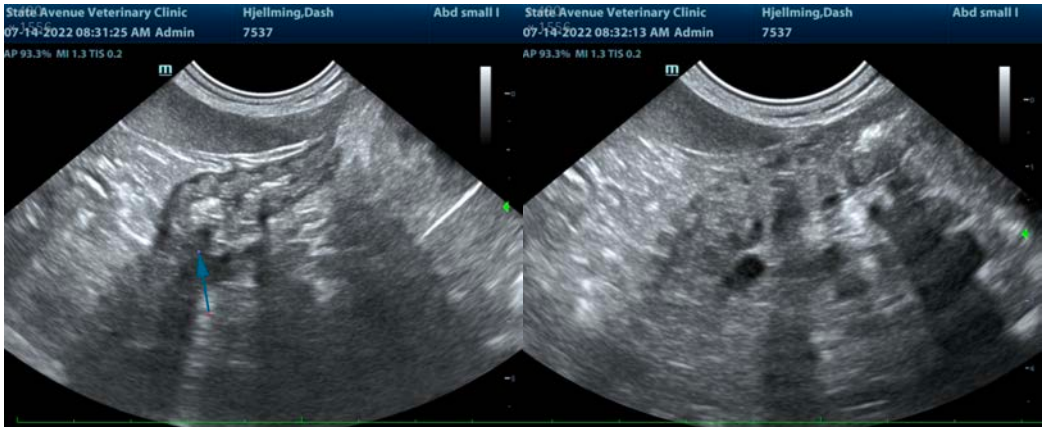

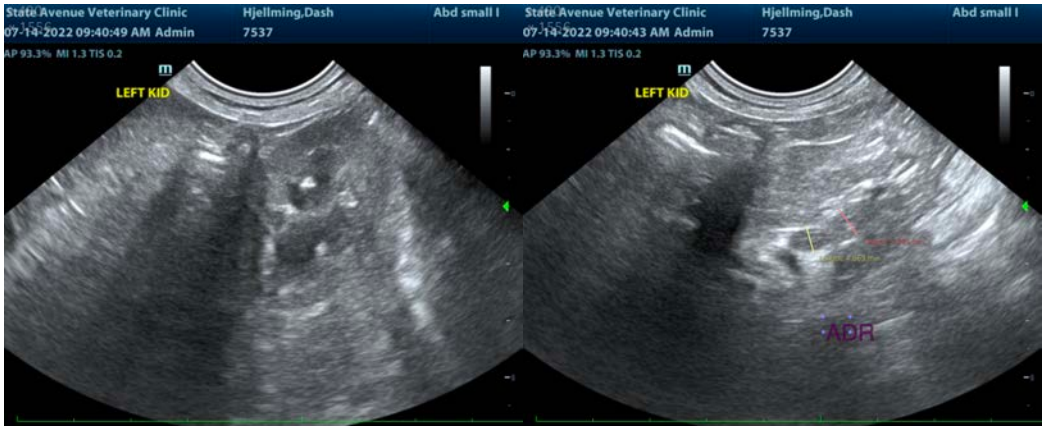

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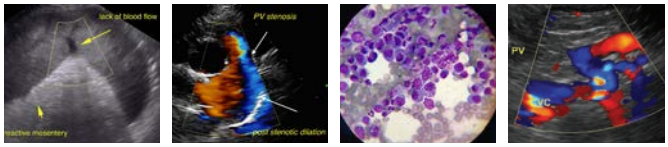

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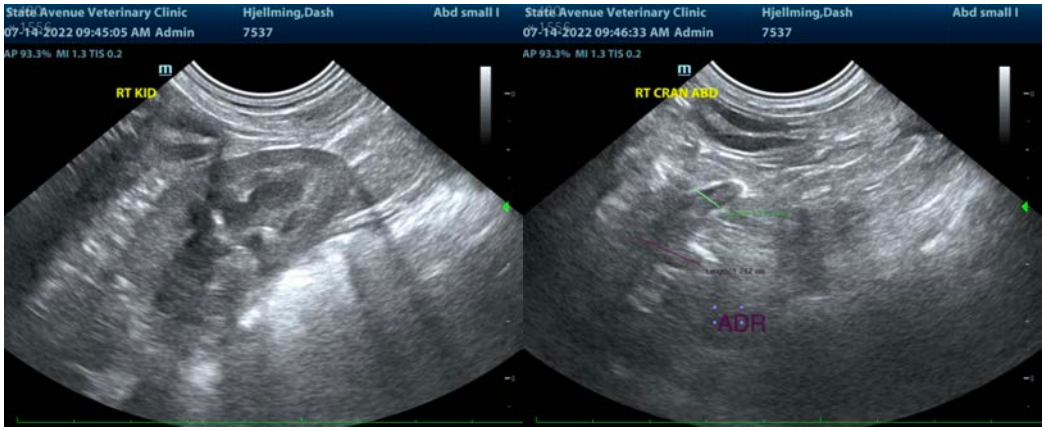

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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