IMAGING PERFORMED BY

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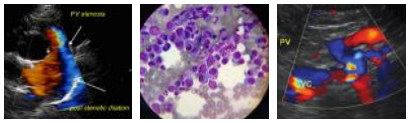

SonoPath
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DATE
10/18/22

PATIENT
Lorna Davis

SPECIES
Canine

BREED
Rottweiler

SEX
Intact Female

AGE
10/12/19

WEIGHT
90.1 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Hickory VH

REFERRING VET
Dr. McCourt

INVOICE
17804

PRESENTING CLINICAL SIGNS

History: P presented for possible toad/mushroom ingestion following several days of vomiting, weightloss, lethargy. Intact female, currently in estrus. Not febrile, not painful on PE. Labwork revealed marked eosinophilia (26k). abdominal rads concern for material/ingsta in stomach, staple. verified CBC with pathology review, chest rads showed soft tissue opaque nodule peripheral lung field. Concern for hypereosinophilic syndrome of rottweilers; need to rule out pyometra, apparent neoplasia vs eosinophilic granulomas/lesions abdominally.

Current Medications: metronidazole, cerenia
Lab Results: Eosinophilia >21K
Radiographs: staple within pylorus, suspected granuloma within lungs.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Dexdomitor.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately 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.

Left kidney is normal is size (6.88 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.

Right kidney is normal is size (7.3 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 measured 3.3 cm long x 0.51 cm at the cranial pole and 0.59 cm at the caudal pole. The right adrenal gland measured 3.4 cm long x 0.68 cm at the cranial pole and 0.61 cm at the caudal pole.

Spleen

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

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.

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 and contains an echogenic interface with distal progressively shadowing material consistent with hairball density (or similar fluid absorbing material) noted.

The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. 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 and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. The mesenteric lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

Other

The uterus is visible and mildly fluid distended consistent with current estrus versus concern for overt pathology. Both ovaries are visualized without evident pathology, however, the right ovary has a lumpy contour as a result of follicular cysts most likely.

ULTRASONOGRAPHIC FINDINGS

- Inflammatory bowel disease (IBD) pattern – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma.
- Flat adrenal glands bilaterally – 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.
- Aggressive lymph nodes – most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.
- Gastric luminal density – Hairball or similar density soft foreign material cannot be ruled out.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patients breed, the hypereosinophilia may be hypereosinophilic syndrome, which is overrepresented in rottweilers. However, given the concurrent pathology of the adrenal glands, gastrointestinal tract and lymph nodes, recommendations include:

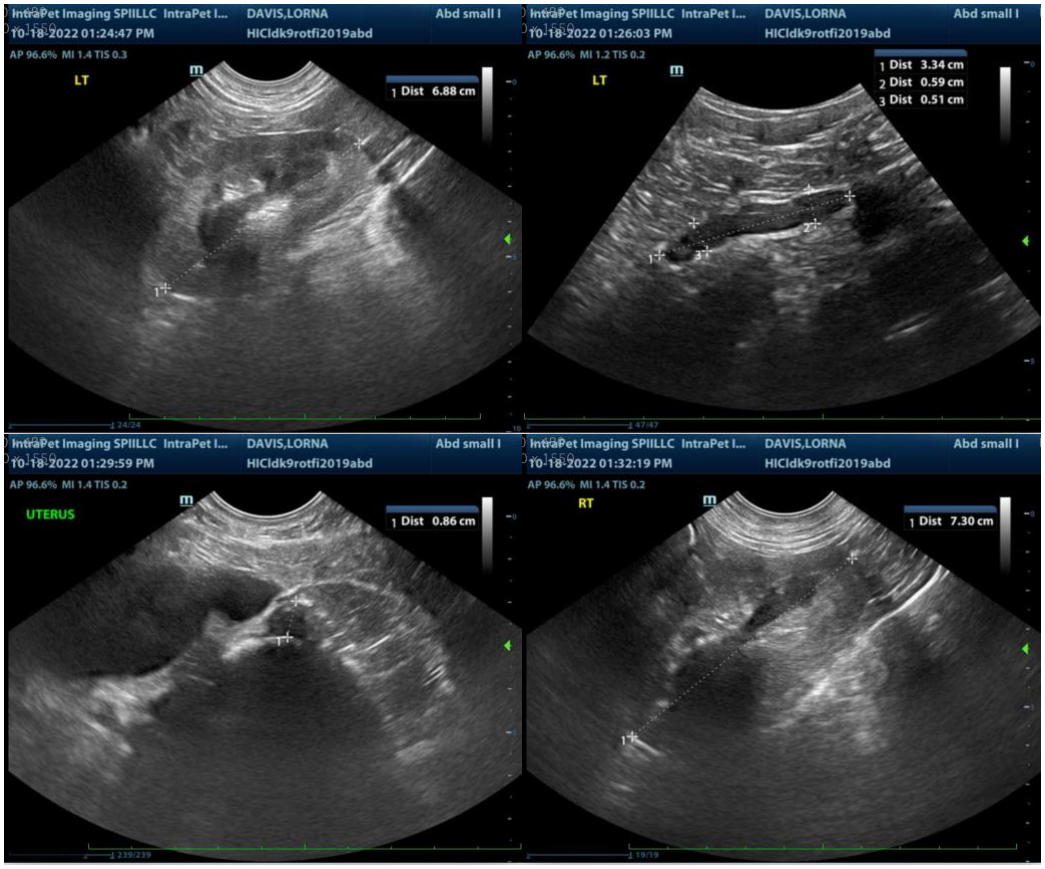
A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

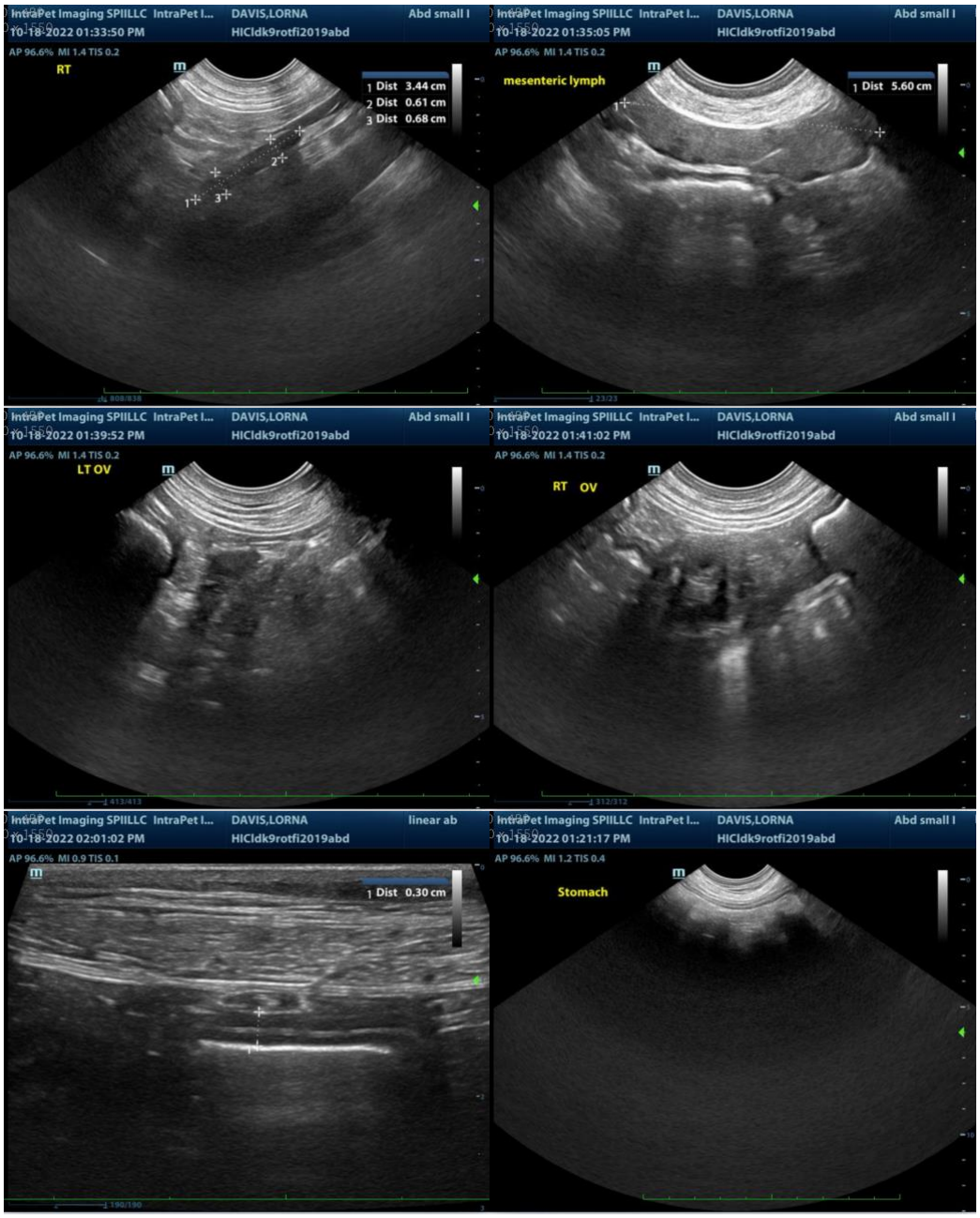
A fecal exam is recommended, as is, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function. A fine needle aspirate of the mesenteric lymph nodes, as was reportedly already obtained is recommended with submission of samples for cytologic evaluation.

In the meantime, empirical deworming with a 5-day course of Panacur is recommended, as is transition to a hydrolyzed protein diet.

Given the appearance of this patients stomach, normal ingesta versus foreign material cannot be definitively differentiated, therefore, additional therapeutic recommendations include supportive/symptomatic management of gastrointestinal signs, rehydration, etc., and fasting with recheck imaging again in 12-24 hour or sooner if vomiting persists through medical management. Recheck imaging could include abdominal x-rays +/- barium administration or recheck ultrasound of the stomach.

Ultimately, biopsies of the gastrointestinal tract may be necessary to definitively diagnose and therefore adequately manage a suspected infiltrative/inflammatory bowel disease, potentially contributing to the eosinophilia, however, the recommendations made above are recommended prior to pursuing biopsies.

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AP 96.6% MI 1.4 TIS 0.2
RT
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2 Dist 0.61 cm
3 Dist 0.68 cm
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mesenteric lymph
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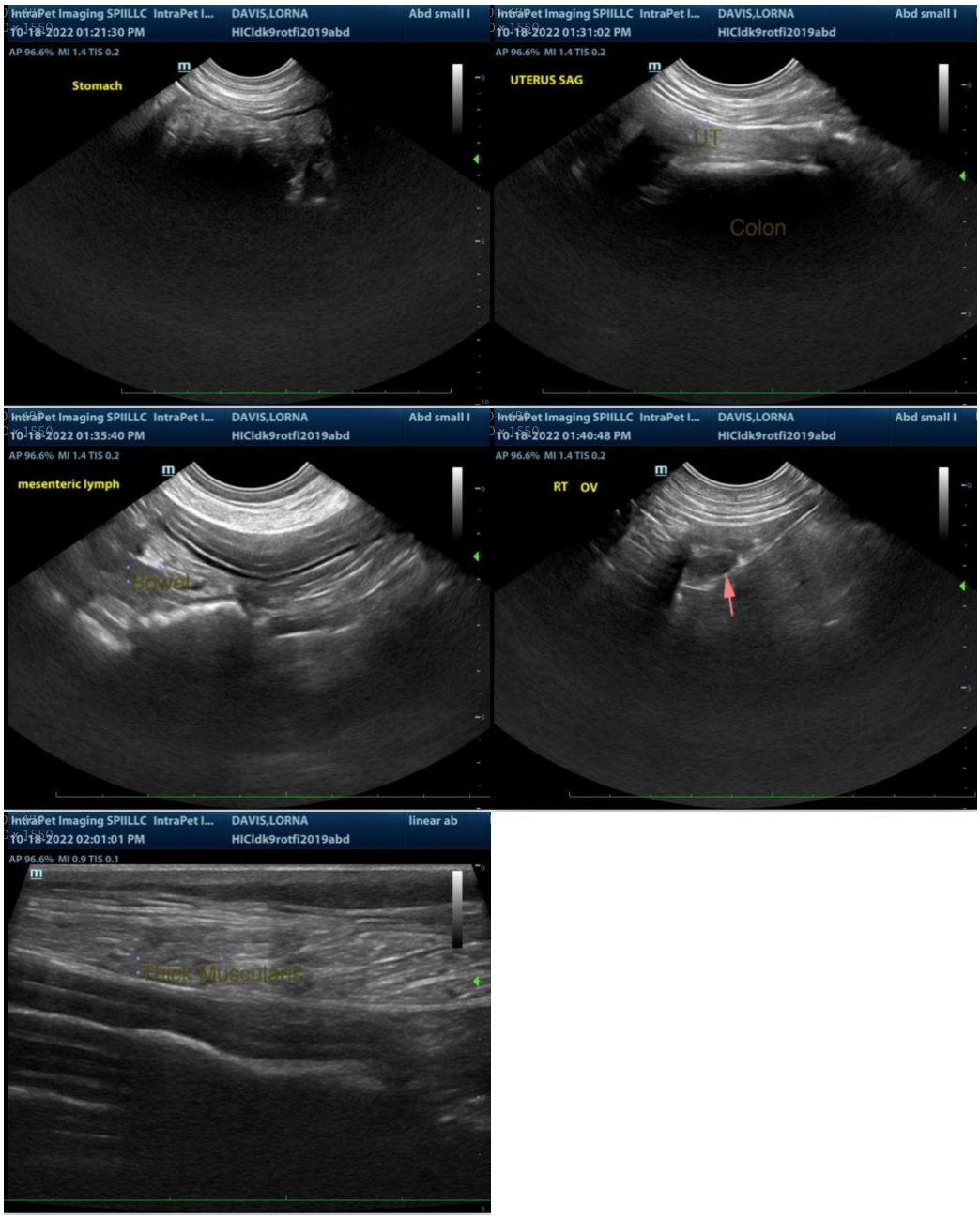
AP 96.6% MI 1.2 TIS 0.4
Stomach



The information and recommendations provided are based on the images presented by the referring veterinarian. 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
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