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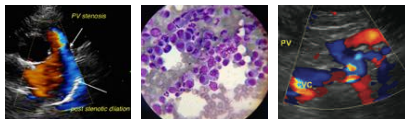

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DATE
2/9/22

PATIENT
Camden Harvey

SPECIES
Canine

BREED
Dachshund Mix

SEX
Neutered male

AGE
10/3/08

WEIGHT
22.8 lbs

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

HOSPITAL NAME
Westminster VH

REFERRING VET
Dr. Hall

INVOICE
95942

PRESENTING CLINICAL SIGNS

History: Pet came in for routine senior exam 1/17/22. At this appointment owner reported that patient was having trouble in the hindlimbs. He would fall in the hind end and look like he is skating. On PE pet was grossly normal with a few dermal masses appreciated. No obvious lameness noted but pet did tense with palpation of the caudal cervical spine, this was not repeatable. Pet also opposed to full extension of the hips bilaterally. There was mild muscle atrophy noted over patient's topline, most evident along the caudal thoracic and lumbar spine. It was recommended that owner consider radiographs as well as bloodwork for possible NSAID therapy. Pet returned for these on 1/20/22. Radiographs revealed generalized hepatomegaly and potential IVDD. Bloodwork did not give evident cause for the hepatomegaly and so abdominal US was recommended.
Current Medications: None other than routine heartworm and flea/tick prevention.
Lab Results: 1/21/22: spec cPL: 306ug/L (0-200). 1/20/22: CBC: reticulocyte hemoglobin 23.7pg (24.5-31.8); platelets 541K/uL (143-448). Chem27: Lipase: 365U/L (0-250). TT4: 1.8ug/dL (1.0-4.0). UA: SG: 1.043; protein 1+; Ketones: trace; bilirubin 1+. Attached separately.
Radiographs: 1/20/22: Radiographic findings: Thorax: grossly benign; Abdomen: The liver is generally enlarged; Musculoskeletal: There is mild spondylosis deformans within the cranial lumbar spine with intervertebral disc space narrowing at L2-3. The pelvis and coxofemoral joints are within normal limits.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By:

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with mildly echogenic urine. The bladder wall is diffusely mildly thickened and irregular measuring 0.6 cm at the thickest area in the apical portion of the urinary bladder. The proximal urethra, ureteral papillae and trigone region appear normal and free of any mass lesions or calculi. This is most consistent with diffuse cystitis.

The left kidney has a normal shape and size (5.36 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.03 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal/borderline large in size measuring 0.73 cm at the caudal pole It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is large in size measuring 1.1 cm at the cranial pole, 1.05 cm at the caudal pole and 2.25 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen
The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver
The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There is a well circumscribed, hypoechoic mass effect associated with the small intestine. This lesion measures approximately 1.51 x 1.54 cm and does not appear to cause any evidence of an obstruction. The findings are consistent with a bowel mass.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas
The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS
PRIMARY FINDINGS:

- Focal mass effect involving the small intestine. Possible differentials would include benign lesions such as a leiomyoma as well as a neoplastic lesion such as lymphoma, leiomyosarcoma, carcinoma, etc. There is no evidence of an obstructive process.

- Borderline bilateral adrenomegaly. The right adrenal gland is slightly more prominent and larger, but I suspect this is due to bilateral hyperplasia. I recommend to continue monitoring of the right adrenal

gland.

- Large heterogenous liver. The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

- Diffusely thickened irregular urinary bladder wall. The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

SECONDARY FINDINGS:

- Decreased corticomedullary distinction in both kidneys. The bilateral renal findings are consistent with age-related change.

- Moderate gallbladder sludge. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

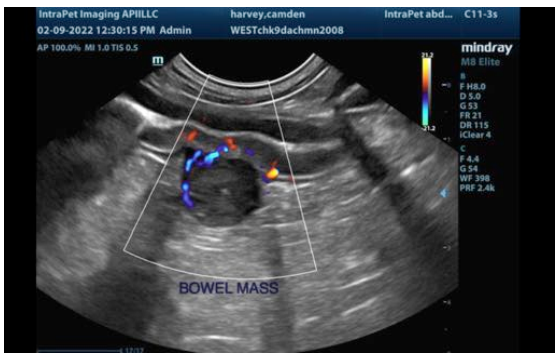
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

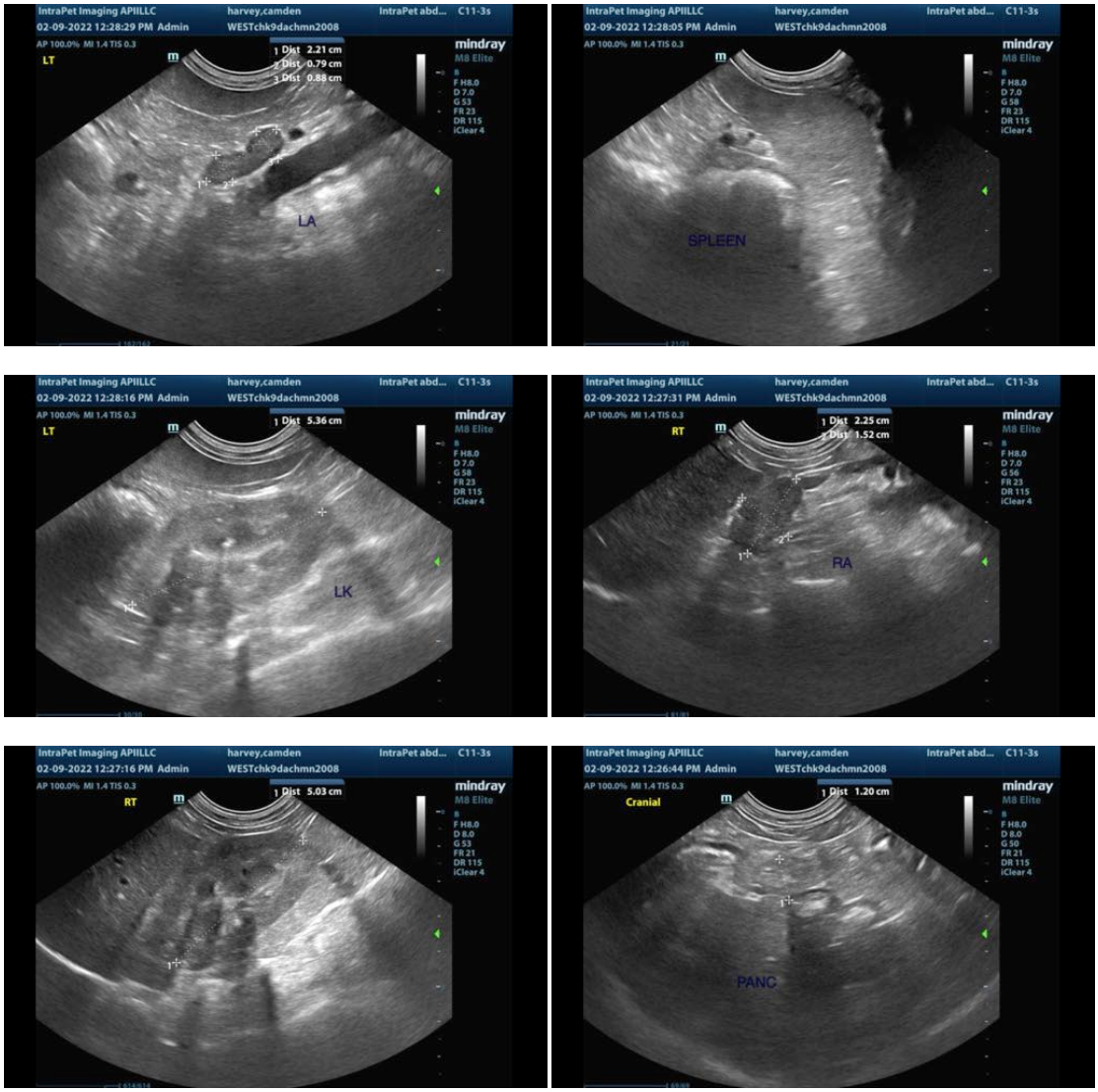
There is a mass effect, which appears to be involving the small intestine. The intestine in that area appears relatively normal and there is no evidence of an obstruction or abnormal wall layering, etc. Additionally, no GI signs are reported so this somewhat unusual. Options moving forward would include attempting a FNA of this lesion or surgical evaluation with resection and histopathology.

The urinary bladder is somewhat thickened and irregular. I suspect that this is due to bacterial cystitis. I recommend urinalysis and culture. If there is no evidence of infection further diagnostics to rule out a neoplastic process would be recommended.

Both adrenal glands are somewhat enlarged, the right adrenal gland more so than the left. If signs of Cushing's are present you can consider an adrenal function testing. Additionally, I recommend blood pressure evaluation. If no signs of Cushing's are present I recommend to continue monitoring of the adrenal glands (particularly the right adrenal gland) for continued growth as I can't rule out a possible early mast lesion

The liver is large and heterogenous. This is a non-specific finding, which could be consistent with a vacuolar hepatopathy if cortisol levels are high. In the absence of liver enzyme elevations I recommend continued monitoring.





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.

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