



PATIENT

Harry Lawrence

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

14yr

WEIGHT

6kg

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Dr. Callihan

HOSPITAL NAME

Animal Emergency
Care

REFERRING VET

Dr. Ryan

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DATE

07/10/2022

PRESENTING CLINICAL SIGNS

History: S: Harry presented as a transfer from Diamond Veterinary Hospital for acute on chronic kidney disease, possible intestinal foreign body, and possible diabetes. He presented to Diamond for vomiting since 7/7 and the initial vomitus contained a small amount of plastic. He has a history to liking to eat plastic things. Harry has as history of CKD and in February of 2022 he had an ultrasound with cytology/aspirates done that showed reactive lymph nodes. Additional History: Ultrasound findings from Feb 2022 : 1) The diffuse change to the small intestine is suggestive of an infiltrative process such as inflammatory bowel disease or small cell lymphoma. Biopsies would be needed for definitive diagnosis. 2) The mild change to the liver may represent a hepatopathy secondary to #1, although a hepatitis/colangohepatitis in relation to #1 is possible. Biopsy would may be needed for definitive diagnosis, if this becomes clinically warranted. 3) Single moderately enlarged mesenteric lymph node. This could represent reactivity or neoplasia. During the exam this patient attempted to bite the technician and so fine needle aspirates are desired, full sedation would be needed. 4) Mild bilateral chronic degenerative renal changes. 5) Incidental splenic myelolipomas. Abdominal radiographs were taken and evaluated by a radiologist whom concluded: The study is indicative of obstructive ileus although a definitive foreign body is not radiographically evident. Given the history of eating plastic and acute onset signs, inapparent foreign material and/or trichobezoar obstruction is considered likely. Possible small splenic or pancreatic nodule. RECC: Pending the results of lab work, diagnostic laparotomy should be strongly considered in this patient. If additional diagnostics are requested, abdominal ultrasound could be of benefit to further evaluate the intestinal tract and spleen. At Diamond, Harry was given buprenorphine, cerenia, and IVF. He was transferred to AEC as all of the Seattle veterinary hospitals were at capacity.

Abnormal PE/Chem/CBC/UA Results: Bloodwork done at Diamond showed - azotemia (creat4.6, BUN96, SDMA14 USG1026) -, hyperglycemia 297 fructosamine 409 , -leukocytosis with neutrophilia and monocytosis, - hyperphosphatemia 15.7, - hyponatremia 135 hypochloremia 95. -note rechecks on glucose at AEC have been normal since last night Abdominal rads with radiologist interp from yesterday 7/9: : The study is indicative of obstructive ileus although a definitive foreign body is not radiographically evident. Given the history of eating plastic and acute onset signs, inapparent foreign material and/or trichobezoar obstruction is considered likely. Possible small splenic or pancreatic nodule. RECC: Pending the results of lab work, diagnostic laparotomy should be strongly considered in this patient. If additional diagnostics are requested, abdominal ultrasound could be of benefit to further evaluate the intestinal tract and spleen.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Both kidneys were borderline prominent in size. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.6 cm in length. The right kidney measured 4.5 cm in length.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands



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No overt pathology in the area of the left and right adrenal glands.

Harry Lawrence

Spleen

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The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Intermittent subtle hyperechoic nodules consistent with benign myelolipomas were present. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted. The spleen measured 0.77 cm in width at the level of the hilus.

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Liver

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The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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Gastrointestinal

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained minor retained anechoic fluid primarily in the antrum and pylorus with no signs of ileus, obstruction or foreign material. The gastric body wall measured 0.40 cm in width.

6kg

The small intestine presented primarily intact wall layering with 1:3 muscularis/mucosa ratio. Segmental propensity for mildly thickened small intestinal walls with decreased mural echogenicity and loss of discernable wall layering was present. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The normal appearing small intestinal wall measured 0.21 cm in width, the mildly thickened small intestine measured 0.33 cm in width.

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Normal visible colon wall layers were present with apparent formed feces in lumen.

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Pancreas

Dr. Callihan

The parenchyma of the left limb of the pancreas presented hypoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

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Free Abdomen

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No omental masses or peritoneal effusion was present.

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Intermittent focally enlarged mesenteric lymph nodes were present. These lymph nodes were homogenous, mildly hypoechoic and smoothly margined. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. An example of lymph node size was 3.2 cm x 1.0 cm.

Dr. Ryan

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ULTRASONOGRAPHIC FINDINGS

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- Bilateral chronic renal changes - subjectively the kidneys did not appear to be end stage but consistent with IRIS III CKD
- Mild retained pyloric fluid - no signs of gastric FB

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- Mildly thickened segmental small intestine (likely jejunum) exhibiting decreased mural echogenicity, indistinct wall layering and concurrent mild ileus pattern
- Mid abdominal mildly enlarged to hypoechoic mesenteric LNs with mild perilymphatic mesentery - hyperplasia, reactive lymphadenitis suspected, early neoplasia possible
- Possible low-grade pancreatitis

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- Secondary: Previously noted benign splenic myelolipoma

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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No obvious GI foreign body or mechanical obstructive pattern. The segmental SI is suggestive of infiltrative criteria, which may be inflammation or neoplasia i.e. low grade lymphoma. Technically, the possibility of a small amount of nonobstructive, non-visualized to passing material could be present but underlying segmental intestinal disease with some contribution to the clinical signs associated with low grade pancreatitis and/or metabolic disease is probable. A GI panel (PLI/TLI/B12/Folate) is recommended. Full thickness SI biopsies are required for definitive diagnosis while recheck LN FNA could be considered for screening cytology. Empirically, continued IVF support with monitoring of renal response and CKD therapy going forward, potential DM therapy and GI support +/- conservative IBD protocol would be reasonable.

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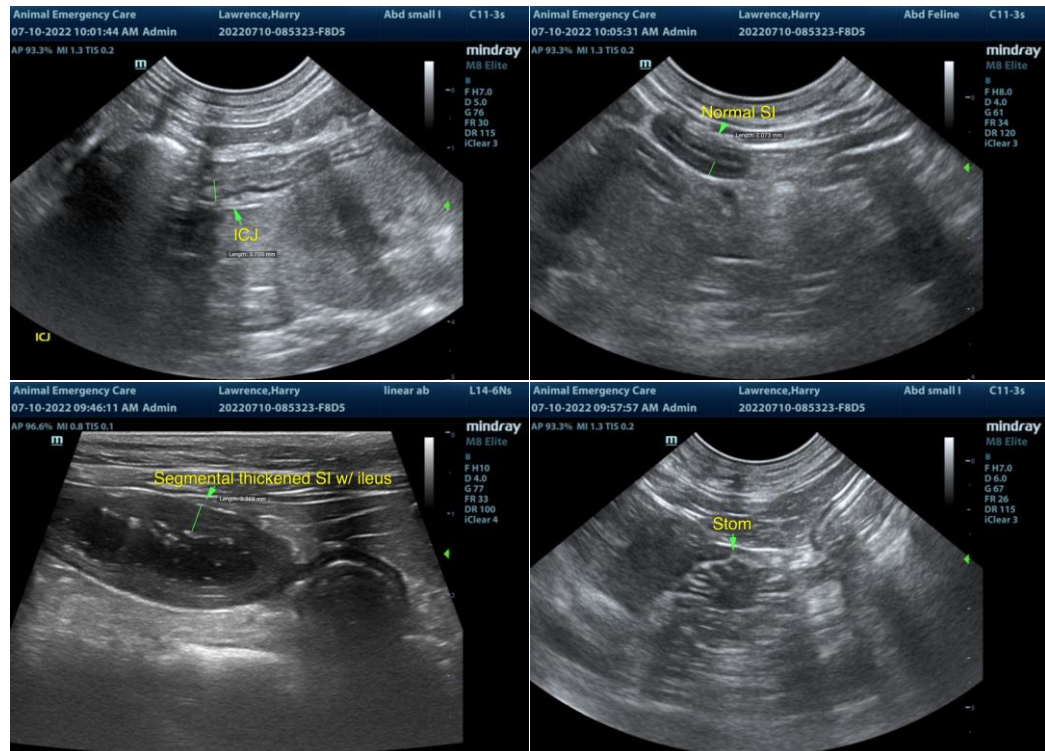
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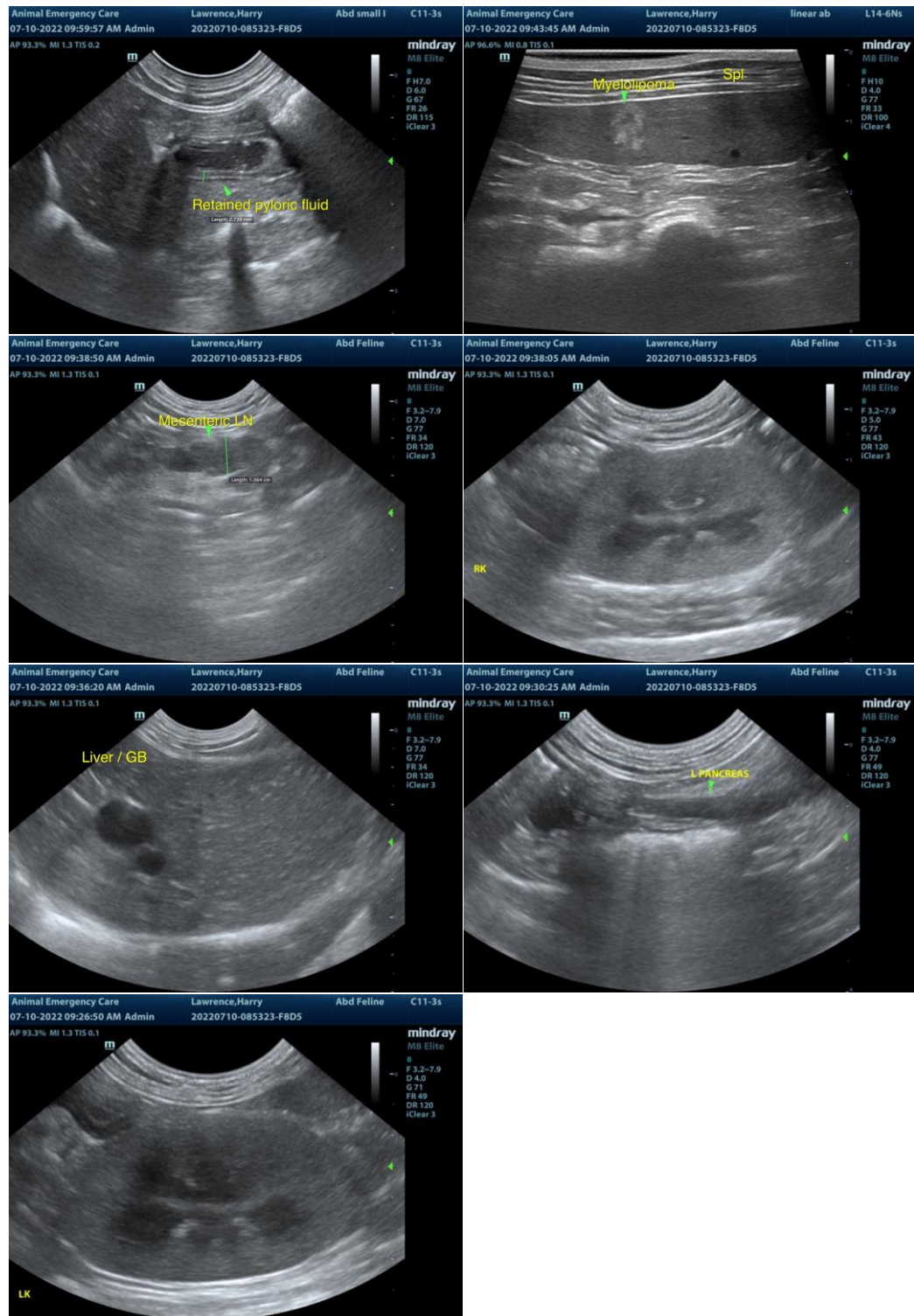
Dr. Ryan

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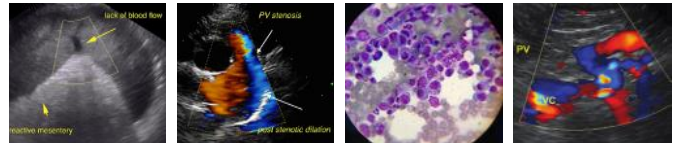
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The information and recommendations provided are based on the images presented by the referring



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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.

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