

PATIENT PRESENTING CLINICAL SIGNS

Fred Keller
SPECIES Feline
P presented for not eating very much and losing weight on 7/25/23. O reports that p vomited up what looked like a piece of bamboo from a chopstick. Has chronic off/on vomiting and urinary issues. P had not defecated in 3 days after vomiting. Chronic renal disease. O unable to medicate at home; attempted trial of Cerenia but O unable to get any form of medication into Fred. Physical exam findings: NSF on physical exam (patient is fractious). Sedated and masked w/ ISO and oxygen for scan-

BREED DSH
Abnormal PE/Chem/CBC/UA Results: Reason for Ultrasound: Continued vomiting and poor appetite. Radiograph Findings: Abdominal x-rays showed some granular material in stomach, but ATO patient had eaten that AM (7/25/23). UA done and NSF- more urine obtained for submission today- Abnormal Chemistry Values: SDMA, BUN, CREA elevated- LABS attached-as well as RADS for supplemental use

SEX Neutered Male

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

AGE 9 Years
WEIGHT 13 Pounds
The urinary bladder is adequately distended with primarily anechoic contents. No masses or distinct cystoliths are observed. However, there is a large amount of mineral/sand debris along the dependent wall of the urinary bladder and almost the entirety of the urethra visible in these images. There is no urinary bladder distention to indicate an obstruction. However, partial urine outflow obstruction can't be definitively ruled out. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Kidneys are bilaterally irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no pyelectasia noted. A 0.41 cm non-obstructive nephrolith is noted in the left kidney. The left kidney is small measuring 2.75 cm. The right kidney is normal in size measuring 3.44 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.42 cm at the cranial pole and 0.45 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), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The 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

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.

HOSPITAL NAME

AMC of Reno

REFERRING VET

Dr. Eryn Taormino

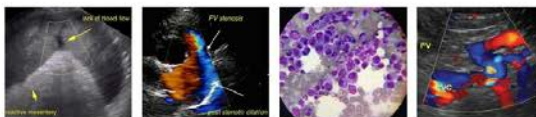
INVOICE

44614

DATE

8/2/23

Loetitia Saint-Jacques,
LVT



PATIENT *Gastrointestinal*

Fred Keller
SPECIES
Feline

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. At the level of the pylorus, there is an approximately 0.60 cm in diameter, slightly heterogeneous, hyperechoic polyp/nodule. Blood flow is difficult to appreciate in these images.

BREED
DSH

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 is empty with no evidence of obstruction or foreign material.

SEX
Neutered Male

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

AGE
9 Years

Pancreas
Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

WEIGHT *Free Abdomen*

13 Pounds
There is no evidence of free peritoneal effusion noted in these images.

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The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

- Gastric/pyloric polyp/nodule – This could represent a benign polyp or even an inflammatory change associated with parasitic or infectious disease. However, infiltrative neoplasia including lymphoma, carcinoma, other cannot be ruled out without tissue sampling.
- 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. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.
- Chronic smoldering pancreatitis could be contributing to clinical signs and should be suspected in the face of appropriate clinical signs.
- Chronic Kidney Disease with a non-obstructive nephrolith in the left kidney – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.
- Large amount of urinary bladder and urethral mineral/sand debris.

IMAGING PERFORMED BY

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

As is reportedly already pending, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

Pending results, a heavily sedated or even anesthetized voiding urohydropropulsion may be helpful to try to obtain and identify the mineral content of the debris to help guided medical management. Having said that, voiding urohydropropulsion even with small mineral/sand debris could be low yield in a male cat.

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.

Ultimately, tissue sampling of the pyloric mass as well as the small bowel is recommended. Given the presence of the pyloric polyp/nodule/mass, upper GI gastroscopy/endoscopy is recommended for further visual evaluation as well as biopsies of the polyp as well as the small bowel. Ideally, colonoscopy for ileal biopsies would be performed at the same time, if possible.

In the meantime, empirical deworming with a 5-day course of Panacur is recommended in addition to supportive/symptomatic medical management in the form of antiemetics, gastroprotectants, and appetite stimulant.

**Heart base images were provided, but interpretation was declined.

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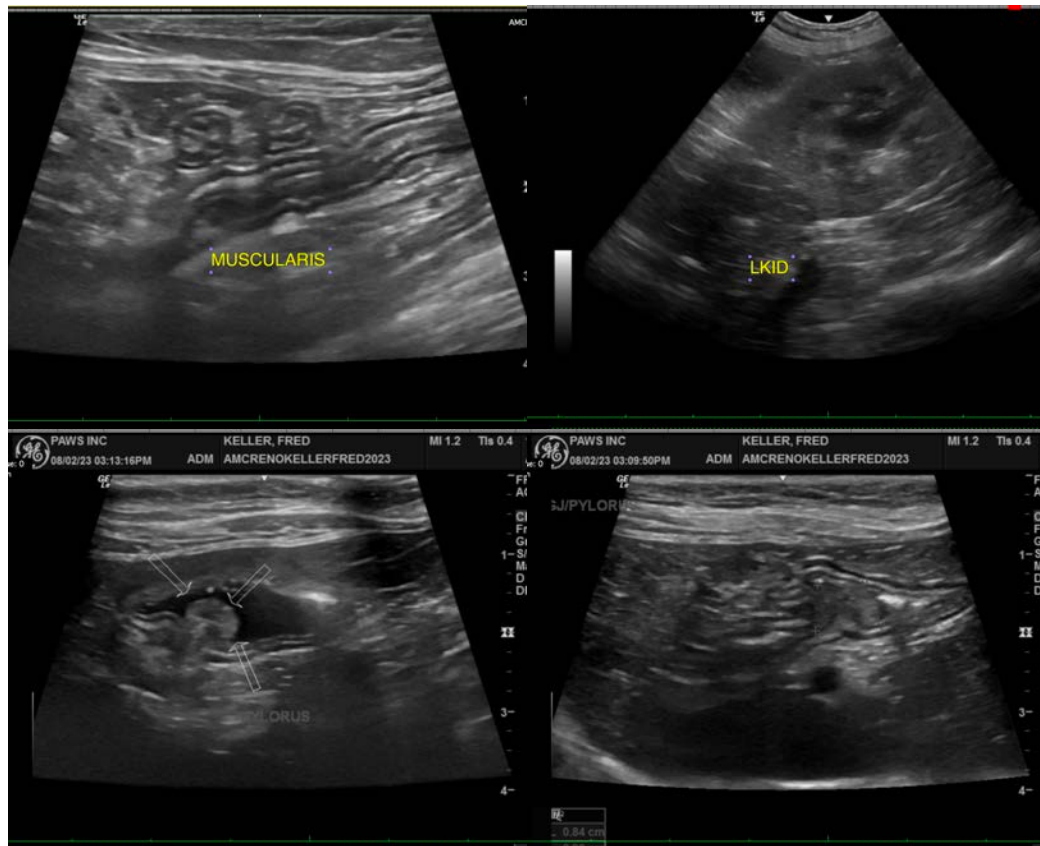
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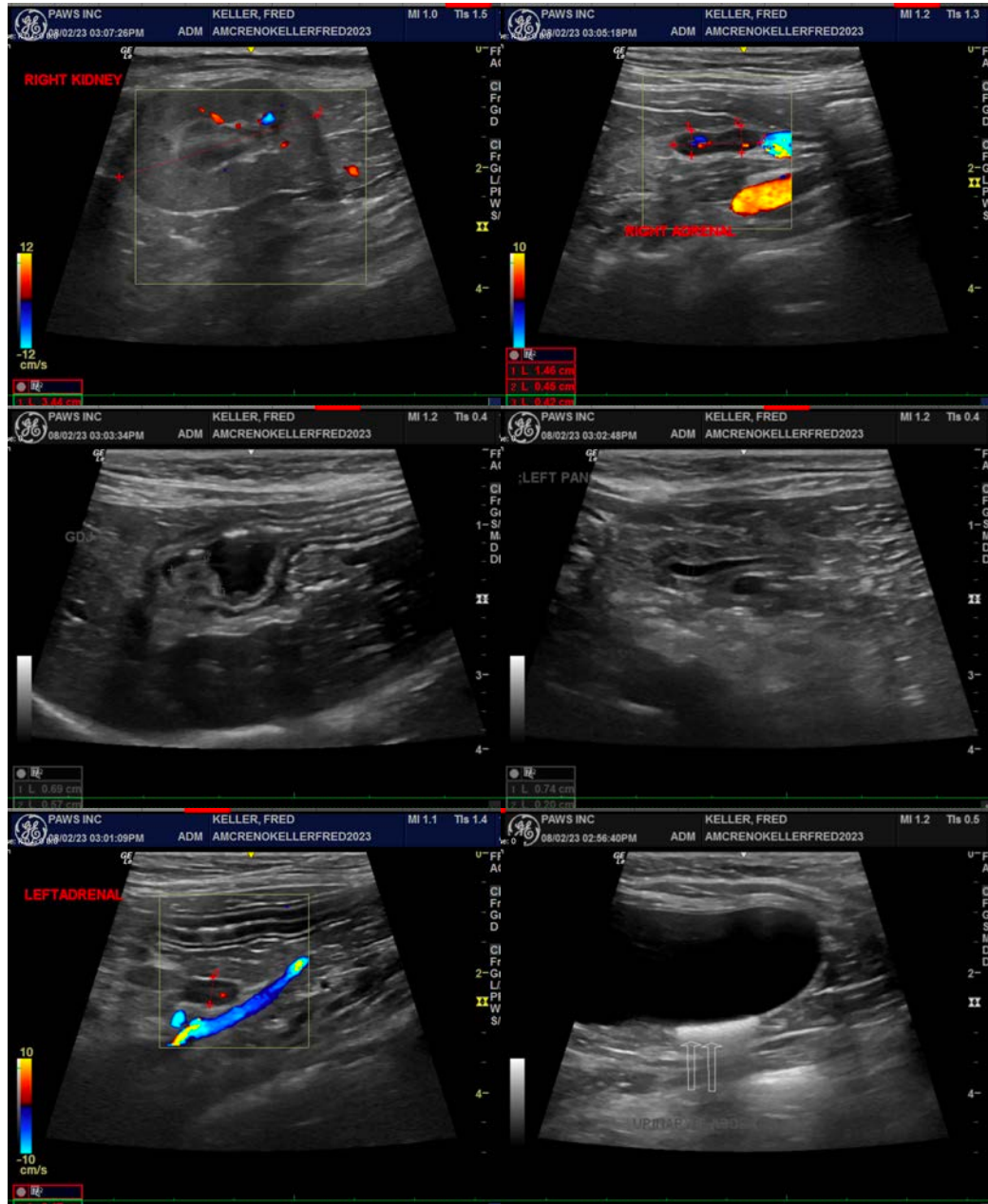
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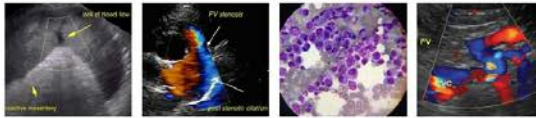
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
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