



PATIENT PRESENTING CLINICAL SIGNS

Mahka Andreyeva

History: Presented last week for not eating well. Clinically dehydrated on PE. Seemed to respond well to IVF. Bloodwork showed significant hyperkalemia. Recheck this Tuesday revealed hyperkalemia again and appetite poor with dehydration again as well. Difficult to examine due to temperament. Possible irregularity felt on right kidney? No meds.

SPECIES

Feline

Abnormal PE/Chem/CBC/UA Results: SDMA 36(0-14) Creatinine 331(71-212) was down to 230 after IVF Urea 18.8(5.7-12.9) was down to 15.3 post IVF K 7.4(3.5-5.8)

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

SEX

Spayed Female

The urinary bladder mucosa, trigone, and visible urethra are normal in thickness and there is no evidence of mucosal irregularities. The bladder lumen is significantly distended with anechoic urine. There are scant hyperechoic speckles in the urine and in one loop, there is a small collection of nonshadowing dependent debris.

AGE

15 Years

The left kidney is small in size, measuring 3.21 cm. It has a more rounded shape but the contour is smooth. There is moderately decreased corticomedullary distinction and the cortex is hypoechoic. There is a small amount of anechoic perirenal effusion. There is pyelectasia noted, measuring 0.4 cm. There is a nonobstructive hyperechoic shadowing nephrolith noted, measuring 0.58 cm in length in the pelvis. The retroperitoneal tissue around the kidney is hyperechoic. The proximal ureter could not be seen or followed.

WEIGHT

4.6 kg

The right kidney is very small in size, measuring 2.56 cm. It has a slightly mishappen contour, consistent with prior renal infarcts. There is significantly decreased corticomedullary definition and the cortex is hypoechoic. There is pyelectasia noted, measuring 0.45 cm. The proximal ureter could not be seen or followed. No nephroliths were seen. The retroperitoneal tissue around the right kidney is significantly hyperechoic and has evidence of edema and effusion tracking through the tissue, giving it an almost mass like appearance.

INTERPRETED BY

Jessica Midence, DVM,
DACVIM (SAIM)

Adrenal Glands

IMAGING PERFORMED BY

Crystal Hill

The left adrenal gland is normal in size at 0.3 cm. The left adrenal gland has normal shape and it is normal in appearance and echogenicity.

HOSPITAL NAME

Snelgrove VS

The right adrenal gland is normal in size at 0.37 cm. The right adrenal gland has normal shape and it is normal in appearance and echogenicity.

REFERRING VET

Spleen

Dr. Gunsinger

The splenic echotexture is homogeneous with parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule is smooth with no irregularities. The splenic vasculature is normal without signs of congestion or thrombosis.

INVOICE

21255

Liver

DATE

2/24/23

The liver is subjectively normal in size with normal contours, structure, with smooth peripheral margins. The echogenicity appears normal with normal portal markings. No overt evidence of inflammatory, infiltrative or regenerative pathology is evident. The visible portions of the vasculature and biliary tract appear normal. No pathological hepatic lymphadenopathy observed.



PATIENT

Mahka Andreyeva

The gallbladder lumen is mildly distended. The wall is a normal thickness and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

SPECIES

Feline

The gastric lumen is empty. The stomach wall is of normal wall thickness, with some variability due to rugal folds. There is normal gastric wall layering. There are no masses or focal lesions observed.

BREED

DSH

Most loops of small intestine measured at the high end of normal or just over the high end of normal, measuring 0.25 cm- 0.26 cm. In several loops, the muscularis layer was subjectively thickened, as it approached the same thickness as the mucosa. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. No focal lesions observed.

SEX

Spayed Female

The sections of colon are visualized with formed fecal material and gas shadowing distally. The colon measures normal. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

AGE

15 Years

The area of 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. The visible pancreatic duct was normal.

Free Abdomen

WEIGHT

4.6 kg

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

INTERPRETED BY

Jessica Midence, DVM,
DACVIM (SAIM)

Primary Findings

- Acute on chronic kidney injury (nephritis with significant retroperitoneal inflammation).
- Nonobstructive nephrolith in the left kidney.

IMAGING

PERFORMED BY

Crystal Hill

Secondary Findings

- Mildly thickened muscularis layer, consistent with chronic enteropathy

HOSPITAL NAME

Snelgrove VS

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

REFERRING VET

Dr. Gunsinger

There is evidence of both significant chronic kidney disease, as well as an acute kidney injury overlying. While there was pyelectasia bilaterally, and a nephrolith in the left kidney, the proximal ureters were not overtly dilated and obstruction is not suspected sonographically. Significant acidosis and/or a distal renal tubular acidosis from AKI could explain the significant hyperkalemia. Bilateral ureteral obstructions would also be another explanation but is not suspected or suggested sonographically. Consider a urine culture and on-going in-patient treatment for acute kidney injury to best address any acidosis or electrolyte abnormalities.

INVOICE

21255

The small intestines measured either just over normal or towards the high end of normal. The muscularis was as thick as the mucosa in certain loops of bowel. A low-grade chronic enteropathy, such as inflammatory bowel disease is possible if the patient has a history of chronic intestinal signs. Because the changes are subtle, a variation of normal is also possible.

DATE

2/24/23



PATIENT

Mahka Andreyeva

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

15 Years

WEIGHT

4.6 kg

INTERPRETED BY

Jessica Midence, DVM,
DACVIM (SAIM)

**IMAGING
PERFORMED BY**

Crystal Hill

HOSPITAL NAME

Snelgrove VS

REFERRING VET

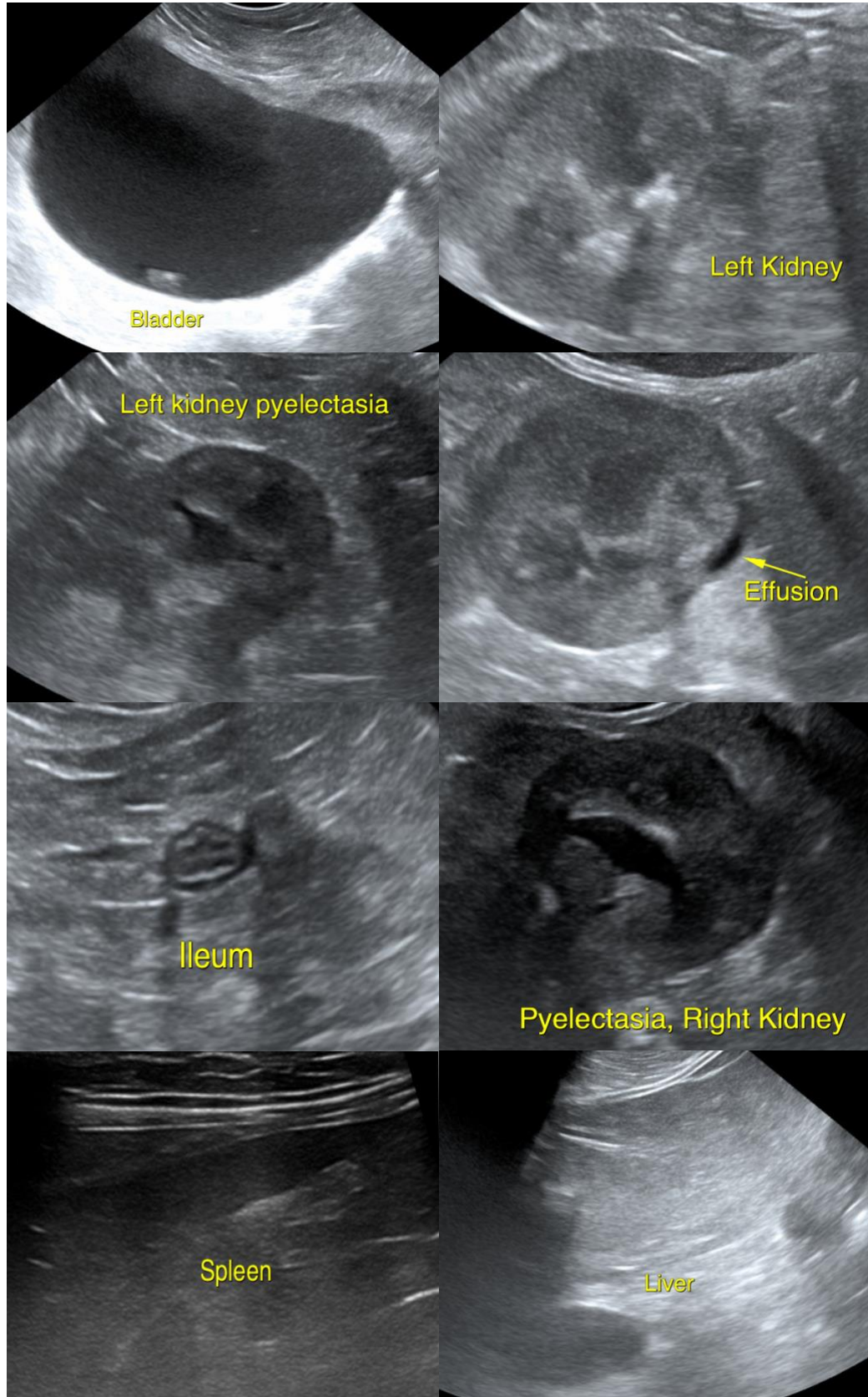
Dr. Gunsinger

INVOICE

21255

DATE

2/24/23





PATIENT

Mahka Andreyeva

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

15 Years

WEIGHT

4.6 kg

INTERPRETED BY

Jessica Midence, DVM,
DACVIM (SAIM)

**IMAGING
PERFORMED BY**

Crystal Hill

HOSPITAL NAME

Snelgrove VS

REFERRING VET

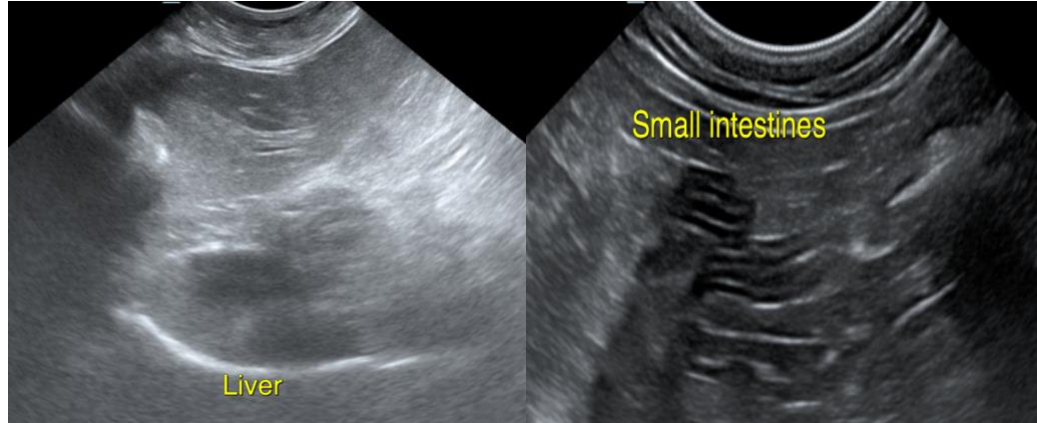
Dr. Gunsinger

INVOICE

21255

DATE

2/24/23



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.

Jessica Midence, DVM, DACVIM (SAIM)

info@SonoPath.com