



**PATIENT PRESENTING CLINICAL SIGNS**

Jack Kaminski

History: 16 year old cat with chronic renal disease, controlled hyperthyroid disease, and chronic gastrointestinal issues. He has been vomiting more frequently and his stomach appears thickened on radiographs. He also has chronic cystitis despite negative urine cultures and no visible stones

**SPECIES**

Feline

Abnormal PE/Chem/CBC/UA Results: BUN 53, creatinine 21, T4 at 4.1 at last measure (when thyroid disease is treated more aggressively, creatinine increases to 2.8-3.0 and appetite drops). Current Medications Methimazole 2.5 mg bid; gabapentin 20 mg bid, cerenia 16 mg 1/4 sid

**BREED**

DSH

**SEX**

Neutered male

**AGE**

16 years

**WEIGHT**

6.31 pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sara Hansen

**HOSPITAL NAME**

Amazon Park Animal  
Clinic

**REFERRING VET**

Dr. Jones

**INVOICE**

10329ag

**DATE**

04/08/2022

**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.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Suspect left and right kidney cortical infarcts. Areas of dystrophic medullary mineral were present in both kidneys. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The left kidney measured 3.3 cm in length. The right kidney measured 3.9 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.35 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.23 cm width.

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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.

**Liver**

The liver was subjectively normal in size, structure, and contour. Focal to intermittent small intraparenchymal cysts were present. 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.

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



**PATIENT** *Gastrointestinal*

Jack Kaminski The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material. The gastric body wall measured 0.28 cm in width.

**SPECIES**

Feline The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The ileocolic wall measured 0.33 cm in width. The jejunum wall measured 0.24 cm in width. The duodenum wall measured 0.24 cm in width.

**BREED**

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

**SEX**

*Pancreas*

Neutered male The left limb of the pancreas exhibited mild prominent size with areas of mild capsule asymmetry and subtle hypoechoic parenchyma compared to adjacent omental fat. No signs of active inflammation or neoplastic disease was evident.

**AGE**

16 years *Free Abdomen*

**WEIGHT**

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

6.31 pounds

**ULTRASONOGRAPHIC FINDINGS**

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R. McKenzie Daniel,  
DVM, DABVP  
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- Bilateral moderate chronic degenerative renal changes with mild dystrophic medullary mineral.
- Mild chronic active pancreatitis pattern.
- Overtly normal gastrointestinal tract.
- Minor hepatic parenchymal remodeling with intermittent small hepatic cysts.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Sonographically the bilateral kidneys are consistent with IRIS stage 2 CKD although further renal staging to include baseline UPC level is suggested. Evidence of significant GI mural changes was not present yet chronic low grade to structurally insignificant inflammatory enteropathy with a contributing factor of chronic pancreatitis as cause of the patient's vomiting may be possible. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

**REFERRING VET**

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Empirically, CKD therapy, monitoring of BP, as needed GI support and conservative therapy for mild chronic active pancreatitis would be reasonable.

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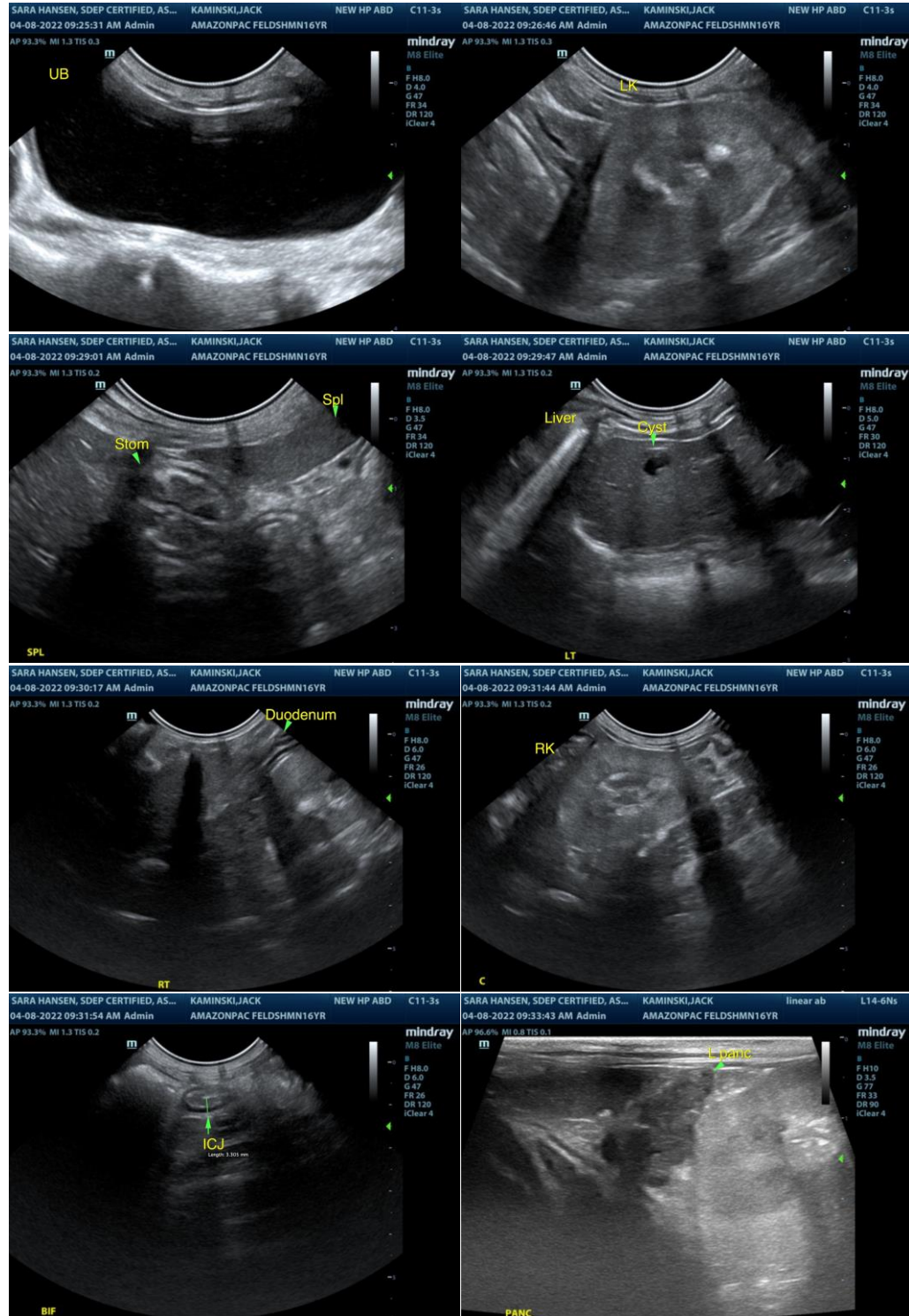
Dr. Jones

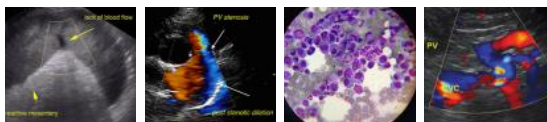
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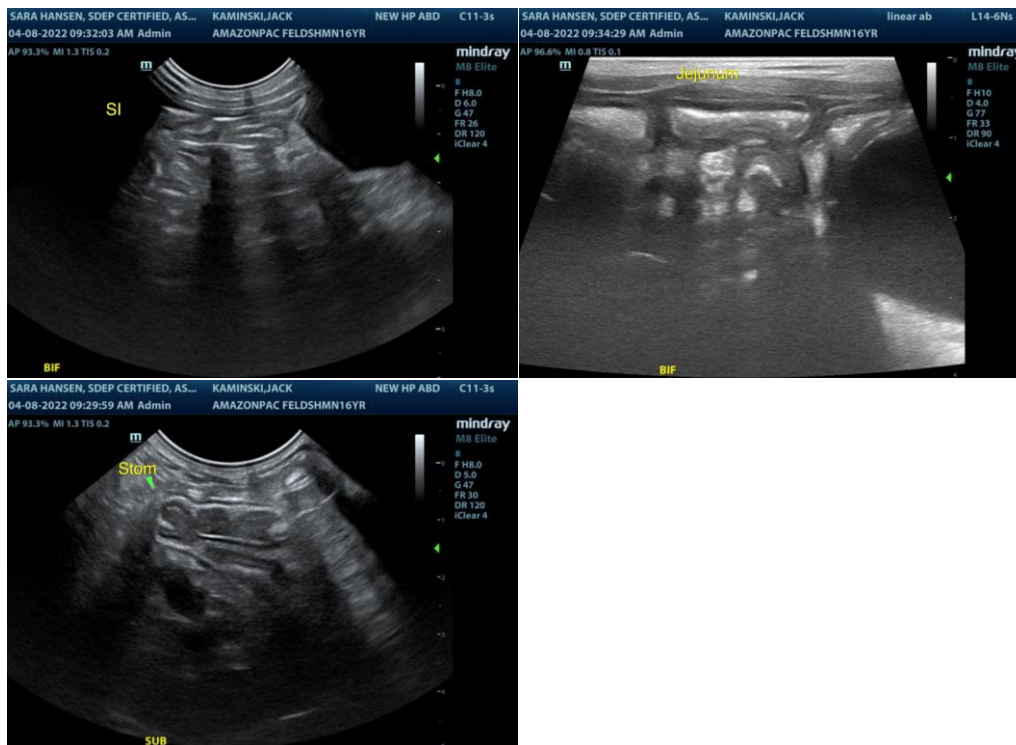
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com