

**DATE PRESENTING CLINICAL SIGNS**

4/14/22 Hematuria/bacterial cystitis and pandora syndrome >4 weeks ago. Follow up labs, IRIS CKD stage 2 and rising BNP >700.

PATIENT

Squirrel Wetter

Current Medications: Convenia, Buprenex. Gabapentin 50mg 2 hours prior to scan.

Lab Results: Stasis mild azotemia but isosthenuric urine. BNP rising 259 to 700+.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

SPECIES

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

DSH

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

SEX

Spayed Female

The left kidney is small, hyperechoic and irregular in shape, measuring 2.25 cm with decreased corticomedullary distinction. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia or hydroureter. The irregularity in the kidney could be due to previous infarcts. No large nephroliths are observed. Renal vasculature appears normal.

AGE

1/11/08

The right kidney is large, irregular and hyperechoic with decreased corticomedullary distinction. There is no evidence of perinephric inflammation or effusion. The irregularity in the kidney could be due to previous infarcts. It is much larger than the left kidney, which could be compensatory. Architecture is very abnormal. Renal vasculature appears normal.

WEIGHT

7.6 Pounds

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal in size measuring 0.35 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.

IMAGING PERFORMED BY

Andi Parkinson RDMS

The right adrenal gland is normal in size measuring 0.38 cm at the caudal pole. 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.

HOSPITAL NAME

Eastern AH

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.

REFERRING VET

Dr. Warner-Jones

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a hyperechoic lesion towards the periphery of the liver lobe measuring 1.64 cm x 1.13 cm. Additionally, near the porta hepatis is a multiloculated cystic lesion.

INVOICE

36892

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The bile duct is visualized and appears somewhat tortuous and mildly dilated at 0.24 cm. No obstruction is visualized.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.24 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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

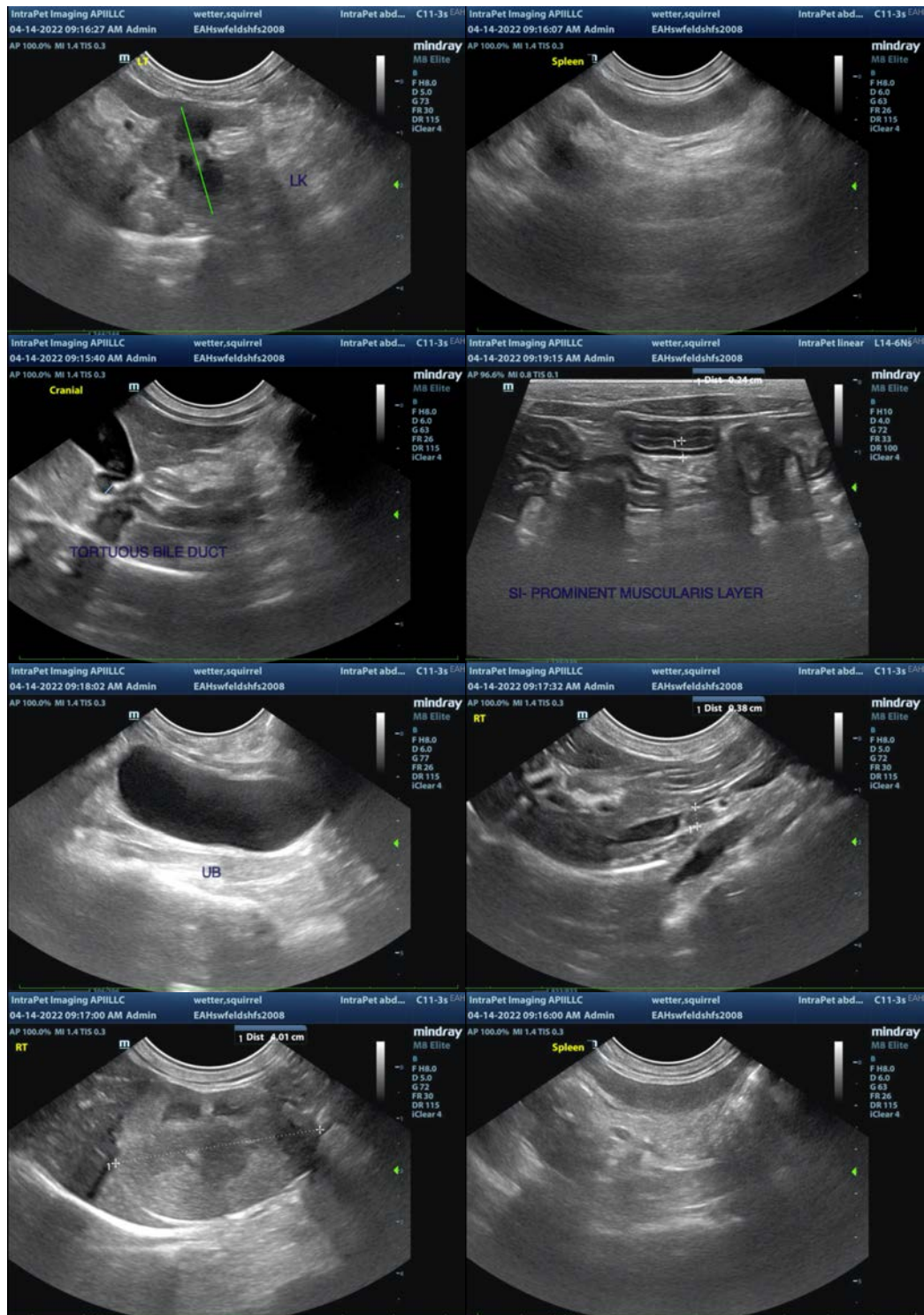
- Irregularly shaped hyperechoic kidneys with poor corticomedullary distinction. The left kidney appears small and irregular, the right is much larger and irregular. This could be due to chronic infarcts and compensatory change of the right kidney. Infiltrative disease could be an alternate less likely differential.
- Mildly heterogeneous liver with hyperechoic and cystic mass lesions – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy. The lesions could represent benign or cancerous lesions.
- Prominent muscularis layer to the small intestine – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma. This can be a normal finding in some older cats.

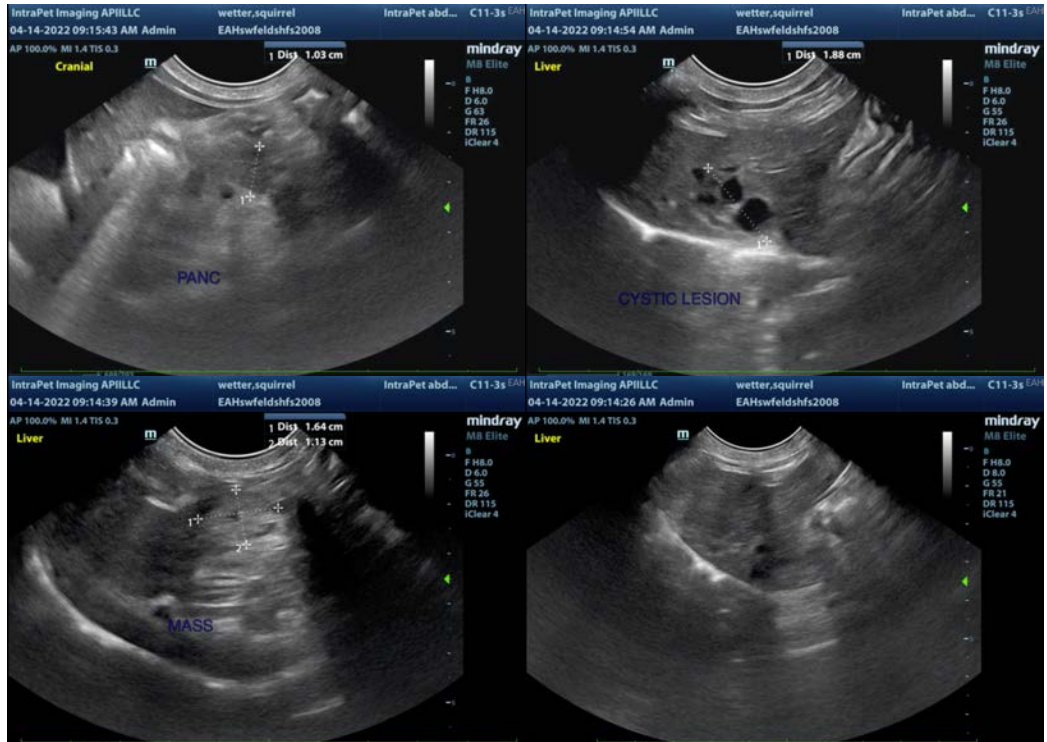
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Both kidneys appear very irregular in shape and architecture. There is no obvious pyelectasia evident, so pyelonephritis is less likely, but I would still recommend a urinalysis and culture in addition to blood pressure evaluation. The changes observed could be due to chronic infarcts and compensatory change in the right kidney, but if round cell neoplasia is high on your differential list, you could consider a fine needle aspirate of the right kidney (provided coags and blood pressure is normal).

Additionally, there are some mass lesions in the liver. There is a hyperechoic, more solid mass along the periphery, and a deeper cystic lesion. Consider a fine needle aspirate of the hyperechoic peripheral mass lesion.

No lower urinary tract lesions were observed. Provided urine culture is negative, then symptomatic treatment for interstitial cystitis could be considered.





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.

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