



**PATIENT**

Maple Cicero

**SPECIES**

Canine

**BREED**

Beagle

**SEX**

Spayed Female

**AGE**

6 Years

**WEIGHT**

49.7 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

Newton Vet Hospital

**REFERRING VET**

Dr. Verhalen/Horn

**INVOICE**

45897

**DATE**

3/15/23

**PRESENTING CLINICAL SIGNS**

Painful abdomen, fever 105 F on admission, has been normal since last night; rads show loss of serosal detail/possible mass effect. R/O peritonitis vs other. Spayed on 2/15/23. Not on any meds.

Abnormal PE/Chem/CBC/UA Results: wnl

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**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.

The left kidney is large (9.58 cm in length) and irregular in shape. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There are two large, mildly echogenic fluid-filled cystic structures visualized measuring 5.74 cm x 3.12 cm and 3.12 cm x 4.82 cm. These could be separate structures, or this could be one large structure. This lesion is concerning for a renal abscess, although a non-infected cystic structure is also possible. There is a significant amount of perinephric inflammation, but no effusion noted.

The right kidney has a normal shape and size (8.12 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.64 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.

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.

**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.

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.



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**Gastrointestinal**

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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 relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 significantly hyperechoic around the left kidney.

**ULTRASONOGRAPHIC FINDINGS**

- Large echogenic cystic structures associated with the left kidney – The history and appearance of these lesions is concerning for possible renal abscess(s).

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There are two large hypoechoic, somewhat echogenic cystic structures associated with the left kidney.

These appear relatively thin walled and are concerning or possible abscesses (given the history of a fever and the significant inflammation surrounding these lesions). Diagnosis requires sampling of the cystic structures. Percutaneous drainage is possible but there is a significant risk of leakage into the abdomen.

If a window can be obtained where sampling can be done passing through a small area of normal renal parenchyma to act as a stopper for backflow of fluid, this could be considered. I suspect this approach would have to be surgical. If drainage can be performed, recommend fluid analysis, cytology, aerobic and anaerobic cultures.

If an abscess is confirmed, medical therapy can be considered in conjunction with drainage. But there is risk of recurrence. Additionally, a nephrectomy could be considered (once abscess confirmed) as a more definitive option.



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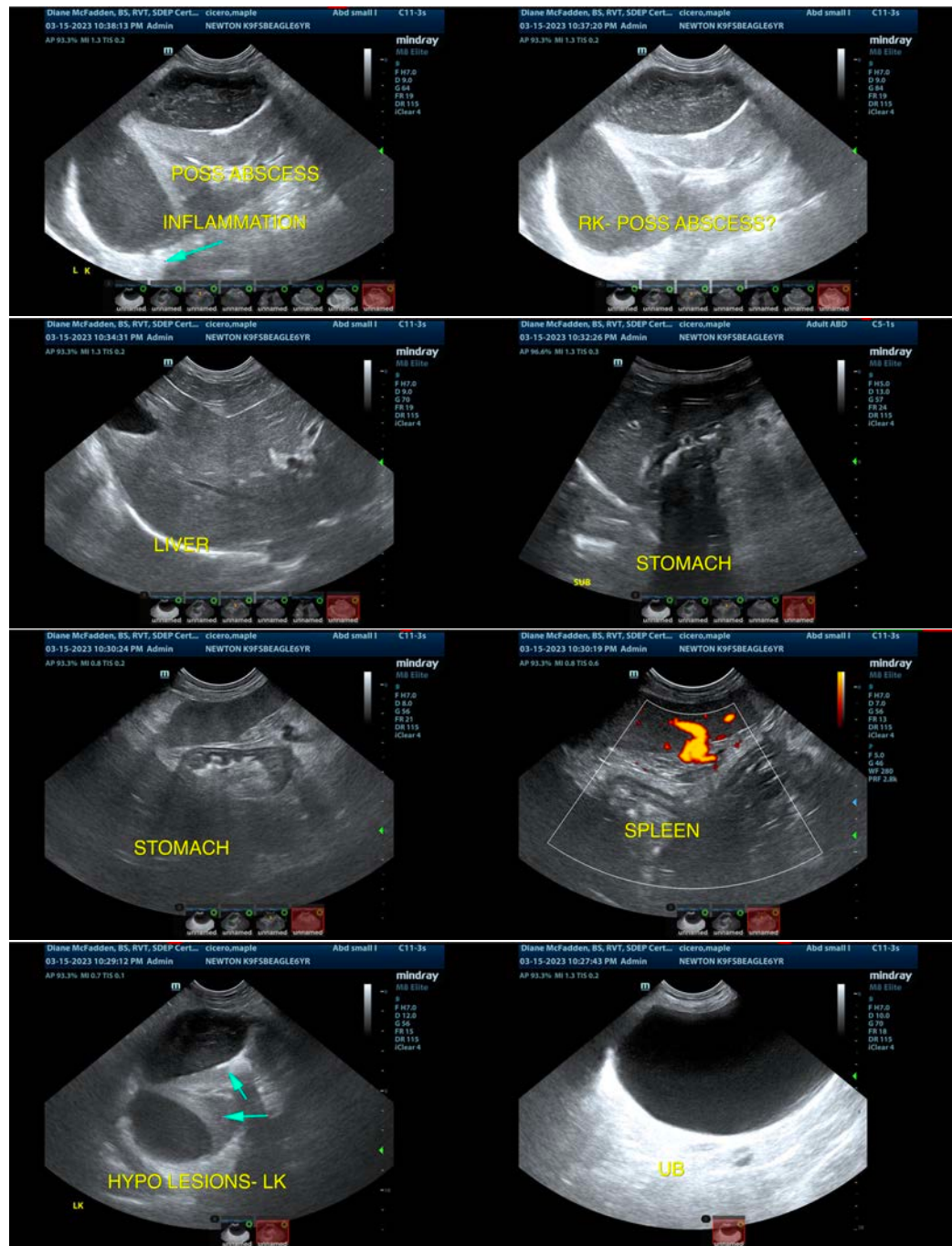
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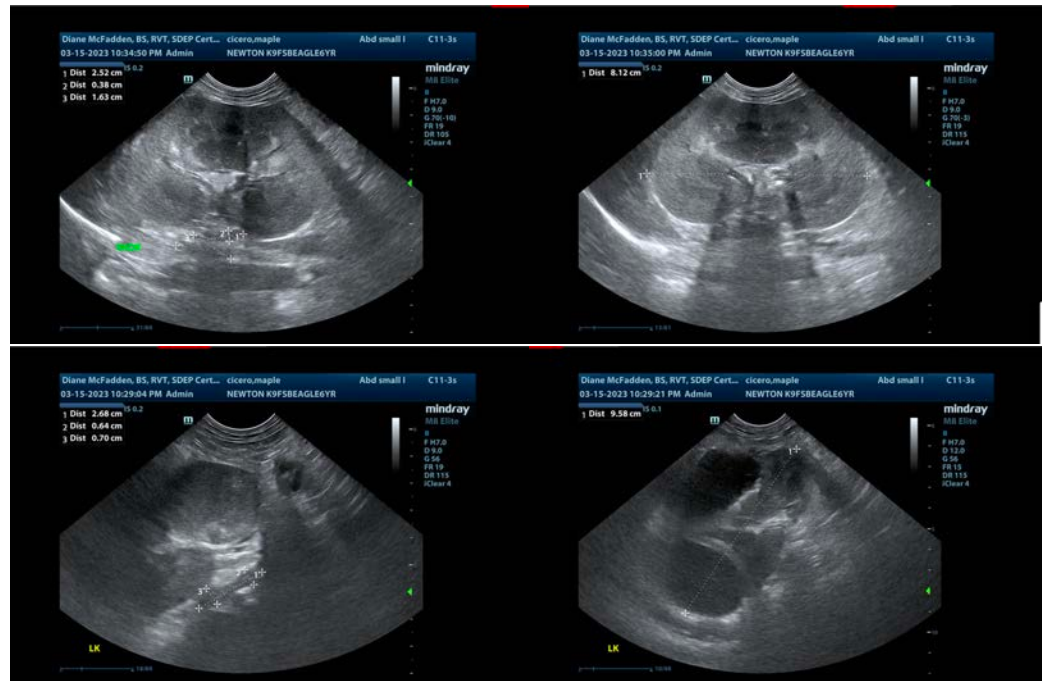
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**IMAGING PERFORMED BY**

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