



**PATIENT**

Angel Butters

**SPECIES**

Canine

**BREED**

Cavalier King Charles Spaniel

**SEX**

Spayed Female

**AGE**

7 Years

**WEIGHT**

32.5 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Pamela Harrigan, RDMS

**HOSPITAL NAME**

Norfolk County VS

**REFERRING VET**

Amelia Ragon, DVM

**INVOICE**

16896

**DATE**

8/18/22

**PRESENTING CLINICAL SIGNS**

History: 7 y/o SF King Charles Spaniel presents for hind end weakness and lethargy on 7/6/22. On exam, patient is very painful upon abdominal palpation. No obvious orthopedic abnormality. Two weeks later, patient is still painful in the abdomen. History of grade II/VI murmur along with pancreatitis. Recent spec cPI from 7/19 elevated at 378. Concern for mass on AXR performed 7/19/22. Normal appetite at home, no other concerns.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with a minor amount of dependent luminal mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Aortic trifurcation was normal. No evidence of pathology in the area of the iliac trifurcation, including no evidence of significant medial iliac or sub lumbar lymphadenopathy, as well as no evidence of iliac thrombus.

Normal size and margination were present in the left kidney. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 4.7 cm in length.

The right kidney was mildly prominent in size compared to the left kidney with maintained 1:3 cortex to medulla ratio. Adequate corticomedullary border demarcation was noted. Pinpoint to focal areas of medullary to pelvic mineral were present. Moderate pyelectasia was present in the right kidney with minor fluid dilation, extending into the lateral diverticula. No overt evidence of concurrent right hydroureter.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.59 cm width at the caudal pole and 0.51 cm width at the cranial pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.50 cm width at the caudal pole and 0.56 cm width at the cranial pole.

**Spleen**

The spleen was overall normal in size with primarily maintained symmetrical capsule contour and finely textured homogeneous parenchyma. A solitary mildly expansive hypoechoic to nonhomogeneous to nodule was present in the medial spleen, measuring 1.2 cm in diameter. The nodule appeared to mildly yet symmetrically distort the medial capsule.

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non distended in size with mild nondependent nonorganized mildly hyperechoic gallbladder debris. The cystic duct and common bile ducts were normal without evidence of dilation.



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***Gastrointestinal***

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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.

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Canine

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.

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

**BREED**

***Pancreas***

Cavalier King Charles Spaniel

The pancreas was normal in size and contour with isoechoic to mildly nonhomogeneous parenchyma compared to adjacent omentum.

**SEX**

Spayed Female

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**AGE**

7 Years

**ULTRASONOGRAPHIC FINDINGS**

- Normal left kidney
- Right kidney, moderate pyelectasia with areas of medullary to pelvic mineral
- Minor dependent urinary bladder mineral
- Minor heterogeneous pancreas
- Mild gallbladder debris (non-mucocele)
- Mildly expansive nonspecific splenic nodule

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Considerations for the right kidney pyelectasia may include pelvic scarring owing to previous calculi passage, early chronic renal changes, IV fluid therapy (if applicable), with less likely potential for pyelonephritis given the lack of inflammatory peri-pelvic criteria. Potential discomfort associated with mineral passage, given the presence of minor urinary bladder, could be a contributing factor to the patients clinical signs.

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Sonographically, the appearance of the pancreas is not consistent with active pancreatitis, although the possibility of low grade to chronic pancreatitis could be present yet sonographically normal. Urine culture and sensitivity on sterile urine sample to assess for or rule out underlying infection is recommended. Dissolution diet could prove beneficial. The gallbladder debris is considered incidental if no evidence of hepatic enzyme elevations or cholestasis.

**REFERRING VET**

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Potential etiologies for the splenic nodule may include benign processes such as nodular hyperplasia, extramedullary hematopoiesis, hematoma, infection, infarction, or neoplasia. Ultrasound guided FNA of the nodule using 25-gauge needle and assuming normal coagulation parameters may be considered. Otherwise, sonographic monitoring of the splenic nodule for any changes in size or appearance with initial recheck in 3-4 weeks would be a more conservative approach.

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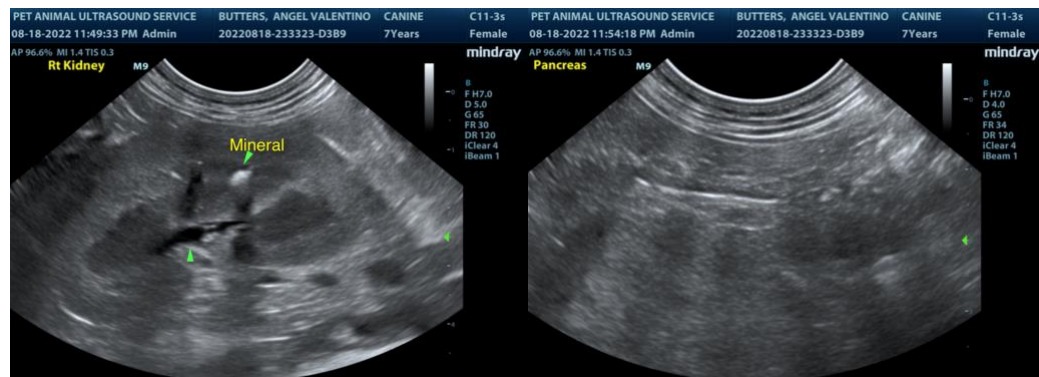
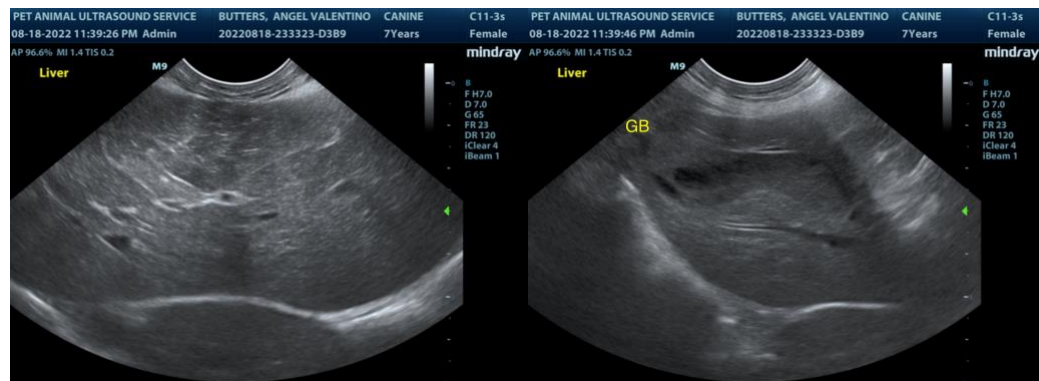
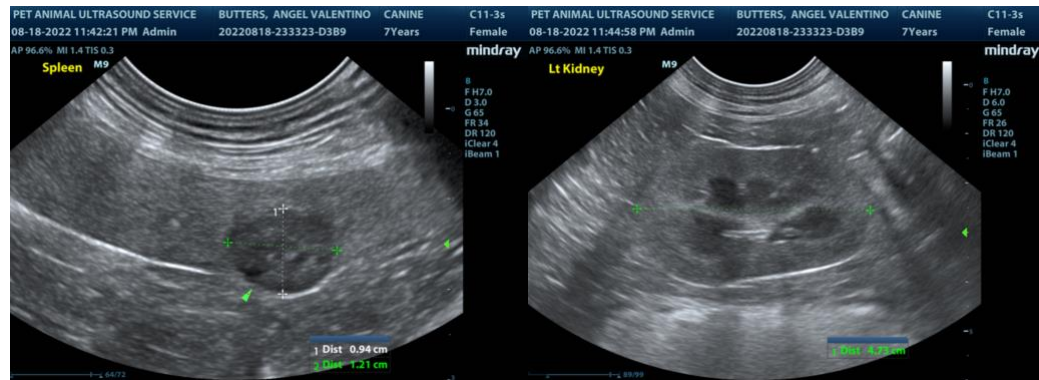
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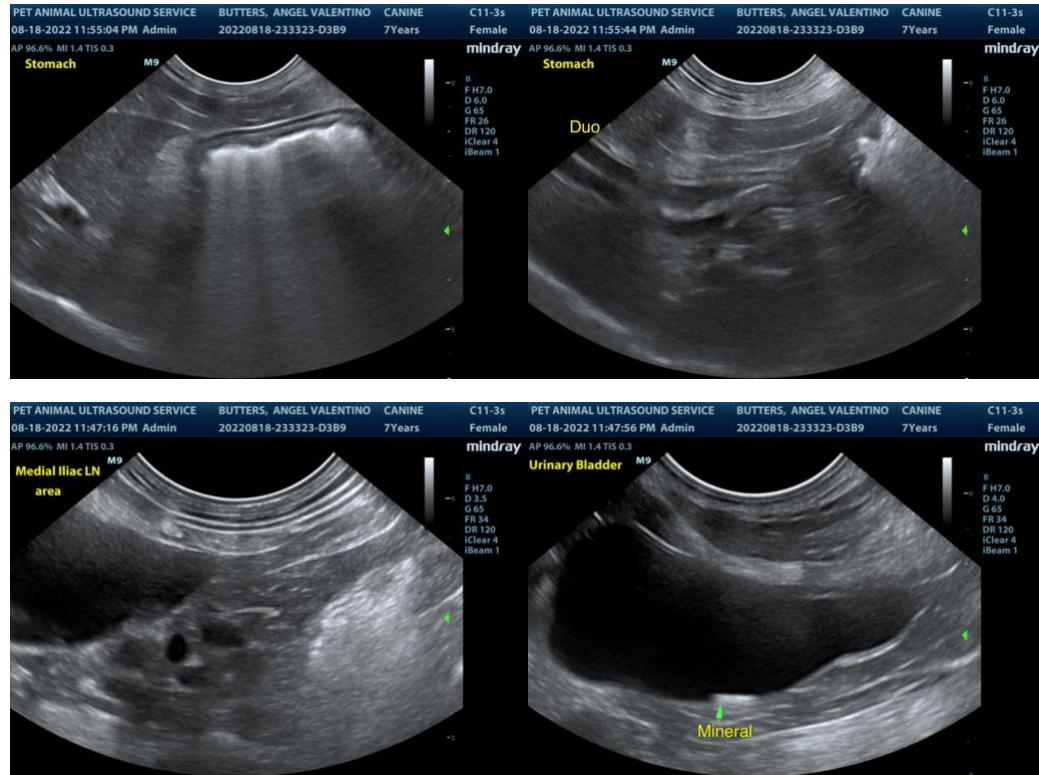
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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 info@SonoPath.com