



**PATIENT**

Norma Koch

**SPECIES**

Canine

**BREED**

Bernese Mtn Dog

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

90.5 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rachel Runnells, RVT

**HOSPITAL NAME**

SVS Imaging Kansas  
City

**REFERRING VET**

Dr. Jennifer Kissinger

**INVOICE**

33669

**DATE**

12/22/21

**PRESENTING CLINICAL SIGNS**

Lethargic, not eating for several days, trouble getting up for about 5 days (painful), lost 7 lb in 2 weeks. Is being hospitalized on fluids and antibiotics. Previously ehrlichia positive on 4DX  
Abnormal PE/Chem/CBC/UA Results: Bldwk: Increased globulins (5.0), increased ALP (258). Rads unremarkable - mild hepatopathy, degenerative changes at L-S junction, mild DA R shoulder. Extremely painful on palpation of multiple joints.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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.

The area of the aortic trifurcation was free of pathology. No evidence of pathology in the area of the uterine stump.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.1 cm. The right kidney measured 7.5 cm.

**Adrenal Glands**

A non-expansive, uniform, mild hyperechoic nodule was noted in the left adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.4 cm x 0.8 cm. The overall left adrenal gland measured 0.97 cm at the cranial pole and 0.80 cm at the caudal pole. This is likely suggestive of a benign process such as adenoma, granuloma or myelolipoma if no clinical signs of adrenal disease are currently present. Potential emerging aggressive neoplasia cannot be ruled out. Therefore, recheck ultrasound every 3-6 months is suggested to monitor for changes in size or appearance. A screening blood pressure is suggested.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.63 cm at the cranial pole and 0.66 cm at the caudal pole.

**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. 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, echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

Transdiaphragmatic view revealed focal comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram



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unless pathology is present. Chest radiographs are recommended to rule out alveolar/lung disease such as neoplasia, thromboembolic disease, chronic inflammatory disease with microconsolidation.

**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.

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.

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

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The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

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**Free Abdomen**

No omental masses, lymphadenopathy or peritoneal effusion.

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**ULTRASONOGRAPHIC FINDINGS**

- Mild age related kidneys
- Left adrenal nodule – suspect adenoma.
- Mild vacuolar hepatopathy – subjectively benign.
- Focal non-specific transdiaphragmatic comet tail artifact
- Mild gallbladder debris (non-mucocele)

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, no overt evidence of significant visceral pathology as an obvious cause of the patient’s clinical signs. Minor potential for emerging left adrenal neoplasia such as pheochromocytoma or adenocarcinoma, yet thought less likely at the time. Sonographic monitoring of the left adrenal gland nodule for evidence of progression is recommended. Correlation of the focal non-specific transdiaphragmatic comet tail artifact with 3 view chest radiographs (if not done) is recommended.

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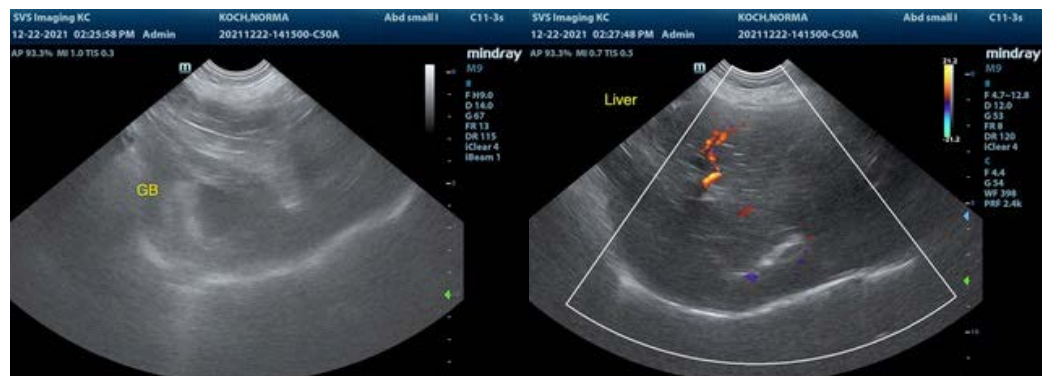
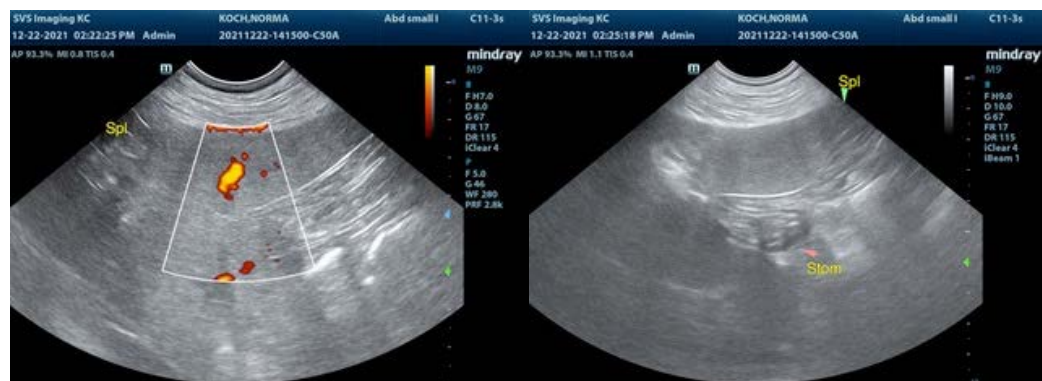
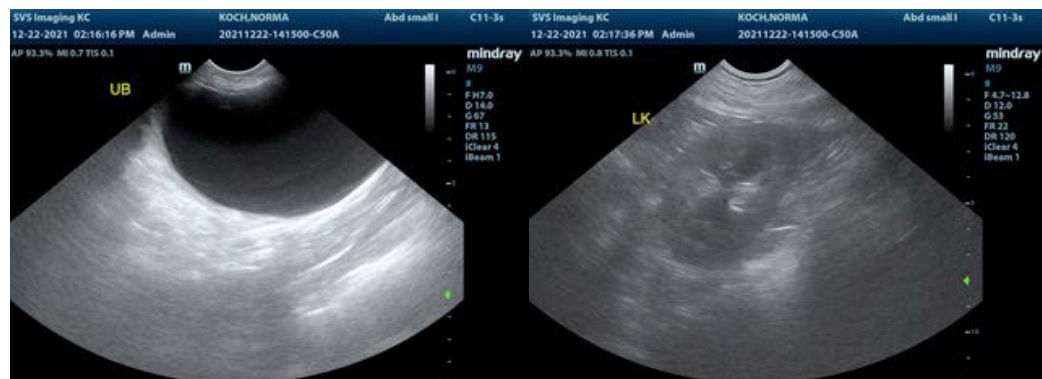
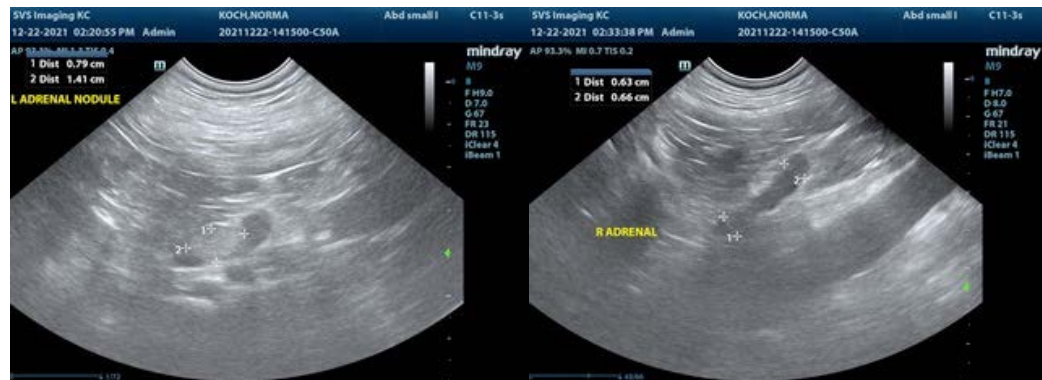
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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

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