



**PATIENT PRESENTING CLINICAL SIGNS**

Jofa Lewis History: Persistent isosthenuria since early Feb 2023. Most recent morning USG was 1.023. Abnormal PE/Chem/CBC/UA Results: Mild renal azotemia. UPCR being run today.

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**BREED**

Bernese Mt Dog The area of the prostate is examined without evident prostatic pathology.

**SEX**

Neutered Male Left kidney is normal in size (6.64 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A hyperechoic band parallel to the corticomedullary border is present. There is no evidence of pyelectasia, mineral or infarcts observed.

**AGE**

6 years Right kidney is normal in size (6.57 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. A hyperechoic band parallel to the corticomedullary border is present. There is no evidence of pyelectasia, mineral or infarcts observed.

**WEIGHT Adrenal Glands**

45 kg Left adrenal gland is normal in size (0.54 cm at cranial pole and 0.67 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**INTERPRETED BY**

Beth Johnson, DVM DACVIM Right adrenal gland is normal in size (0.43 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. The cranial pole is unable to be fully visualized in these images. Visible surrounding vasculature appears normal.

**Spleen**

**IMAGING PERFORMED BY**

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Dr Sarah Barthelemy **Liver**

**HOSPITAL NAME**

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Britannia Kingsland VC

**REFERRING VET**

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Dr Radcliffe **Gastrointestinal**

**INVOICE**

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

**DATE**

5.9.23



**PATIENT** The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Jofa Lewis

**Pancreas**

**SPECIES**

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Canine

**Free Abdomen**

**BREED**

There is no evidence of peritoneal effusion. Mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

Bernese Mt Dog

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

**Findings**

Neutered Male

**AGE**

6 years

- Medullary rim sign - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

**WEIGHT**

45 kg

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr Sarah Barthelemy

**HOSPITAL NAME**

Britannia Kingsland VC

**REFERRING VET**

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- Given this patient's reported azotemia and isosthenuria, kidney disease, possibly acute-on-chronic is suspected. Recommendations include a blood pressure, quantifying proteinuria (if indicated based on urinalysis results via a UPC) and testing for Leptospirosis. In the meantime, beginning medical management for kidney disease in the form of a kidney-friendly diet (if tolerated), as well as medical management of hypertension and/or proteinuria (if indicated); potentially an empirical course of broad-spectrum antibiotics, etc., is recommended. If gastrointestinal signs are present and/or appetite is decreased, supportive/symptomatic medical management of possible secondary gastritis in the form of antiemetics, gastric protectants, appetite stimulants, +/- fluid therapy, may also be helpful. Close monitoring of this patient to help determine the speed of progression of the kidney disease and to address any newly developing abnormalities, such as electrolyte abnormalities, etc., should be considered.



**PATIENT**

Jofa Lewis

**SPECIES**

Canine

**BREED**

Bernese Mt Dog

**SEX**

Neutered Male

**AGE**

6 years

**WEIGHT**

45 kg

**INTERPRETED BY**

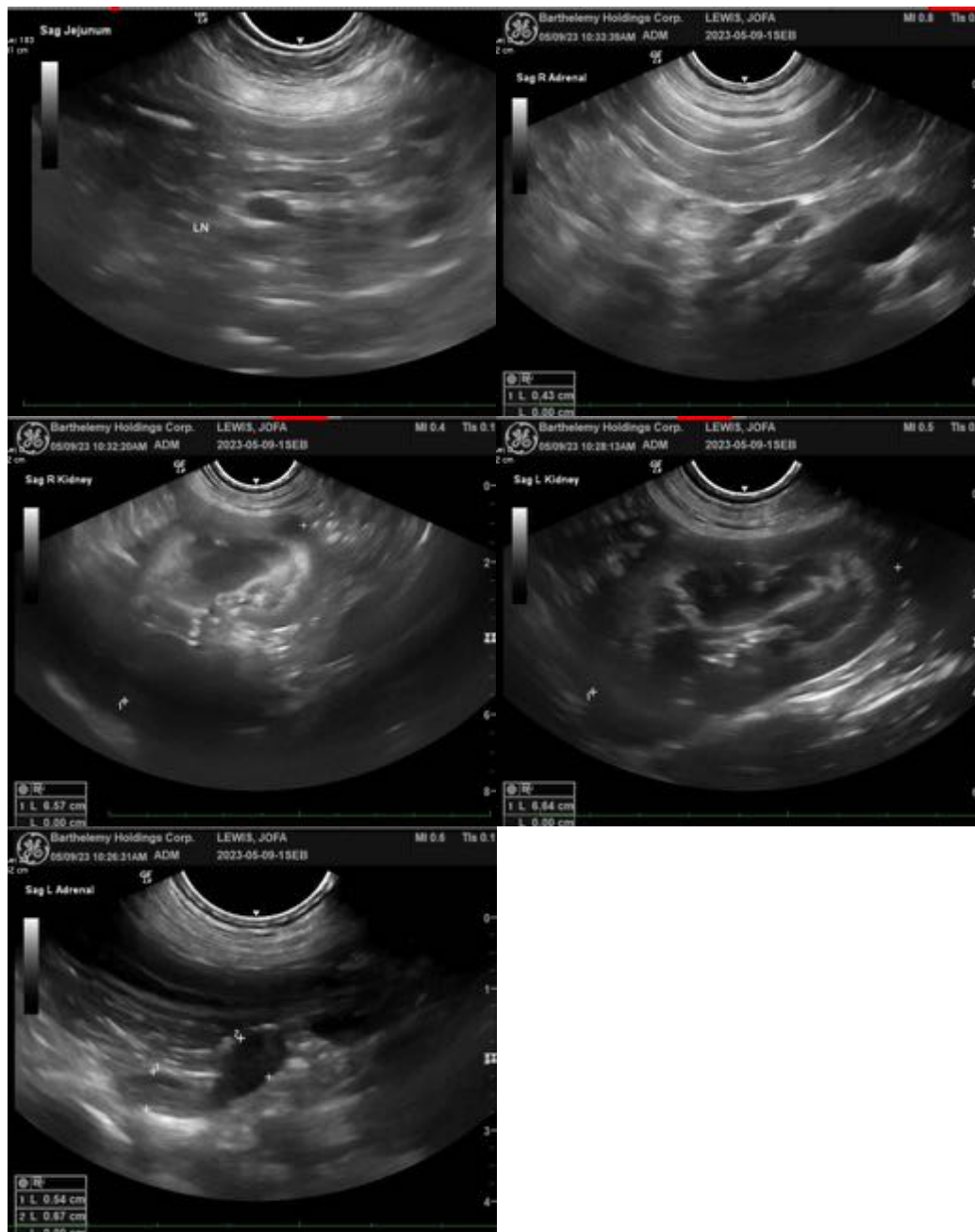
Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr Sarah Barthelemy

**HOSPITAL NAME**

Britannia Kingsland VC



**REFERRING VET**

Dr Radcliffe

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.

**INVOICE**

12991

Beth Johnson, DVM DACVIM  
Beth.Johnson@SonoPath.com

**DATE**

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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.