



**PATIENT PRESENTING CLINICAL SIGNS**

Lucy Johnson History: butorphanol for sedation History: Has chronic pododermatitis mainly LF foot, atopy, hypertension, adrenal mass and liver disease See previous U/S history from 10/21/21 and 1/6/22 ☐ Static chronic renal changes with medullary mineralization • Similar appearing left adrenal nodule • Right adrenal mass with parenchymal mineralization ☐ Chronic hepatopathy with hypoechoic parenchymal nodules and focal parenchymal cyst – subjectively static compared to previous ultrasound. • Probable benign splenic nodules – suggestive of benign myelolipomas, hyperplasia, or potential chronic infarcts or emerging mineralization. Patient is currently on: amlodipine 2.5mg 1/2TBID Cyclosporine 50mg PO SID Ketoconazole 50 mg PO SID Ursodiol Denamarin Physical exam findings: obesity, distended abdomen ALP 2048 (Prev 1868), GGT 16 (Prev 8), Glu 151 (prev 143), PSL 237 (prev 206), Platelet count 580k, T 4 0.5., FT4ED 18.6 No WBC or glucose on UA, USG 1.024, pH 5.5 Radiograph Findings(email radiographs if available): None performed BPM100 Reason for Ultrasound: follow up U/S from 3 months ago

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Spayed Female

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**AGE**

13 Years

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen with minor pinpoint dependent mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**WEIGHT**

34.6 Pounds

The area of the aortic trifurcation was free of pathology.

**INTERPRETED BY**

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

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 to moderate loss of corticomodullary symmetry and definition expected for the age of the patient. The left kidney measured 5.1 cm in length. The right kidney measured 5.2 cm in length. Previously noted nonobstructive areas of medullary and peripelvic mineral. Mild pyelectasia was present in both kidneys.

**Adrenal Glands**

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques, RVT  
LVT

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. Overall, the left adrenal gland measured 1.76 cm width at the caudal pole and 1.2 cm width at the cranial pole. A well-defined, hyperechoic nodule was present in the mid to cranial left adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.6 cm x 1.2 cm in diameter.

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Brighton Greens VH

Previous noted nonhomogeneous to mineralized right adrenal mass was present, measuring 3.2 cm x 2.1 cm. The right adrenal gland revealed asymmetrical contour. No overt evidence of vascular invasion yet cannot be definitively excluded. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured – cm width at the caudal pole and – cm width at the cranial pole.

**REFERRING VET**

Dr. Robin Janeway

**Spleen**

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The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, well-defined, symmetrical, echogenic nodules were present in the medial parenchyma adjacent to the hilus. The nodules appeared to be similar compared

**DATE**

5/5/22



**PATIENT** Lucy Johnson  
to the previous ultrasound without evidence of progression. 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. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas. A mildly expansive to mixed echogenic macronodular small mass was subjectively present in the area of the cranial spleen, measuring approximately 2.5 cm in diameter.

**SPECIES** Canine **Liver**

**BREED** Lhasa Apso  
The liver revealed static generalized with previously noted similar appearing hypoechoic to nonhomogeneous intraparenchymal nodules.

**SEX** Spayed Female  
The gallbladder was non distended in size with moderate hyperechoic to mixed echogenic focally mineralized gallbladder debris, primarily in the caudal lumen in the area of the gallbladder neck. The cystic duct and common bile ducts were normal without evidence of dilation. No evidence of peripheral gallbladder inflammation.

**Gastrointestinal**

**AGE** 13 Years  
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 was normal with previously noted nonspecific minor segmental mucosal striations.

**WEIGHT** 34.6 Pounds  
Normal visible colon wall layers were present with apparent formed feces in lumen.

**Pancreas**

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

**INTERPRETED BY**

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DABVP (Canine and  
Feline)

**Free Abdomen**

No overt lymphadenopathy or peritoneal free fluid.

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LVT

**Heart**

A rapid view of the heart revealed no evident pathology.

**ULTRASONOGRAPHIC FINDINGS**

- Static chronic renal changes with medullary to peripelvic mineral, mild bilateral pyelectasia
- Essentially static left adrenal nodule
- Subjective static mineralized right adrenal mass
- Chronic hepatopathy, exhibiting similar appearing nonprogressive intraparenchymal nodules
- Similar appearing focally mineralized moderate gallbladder debris (non-mucocele)
- Static benign splenic nodules, mixed echogenic similar appearing macronodule at the cranial spleen- suspect similar macronodular (i.e., myelolipoma) or similar neoplastic criteria, such as hemangiosarcoma thought less likely.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Aside from the probable cranial splenic mildly expansive macronodule, the previously noted



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Lucy Johnson

abnormalities in this patient appear to be essentially static with similar presentation. Continued periodic monitoring at this stage with continued supportive care would be reasonable

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

34.6 Pounds

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Feline)

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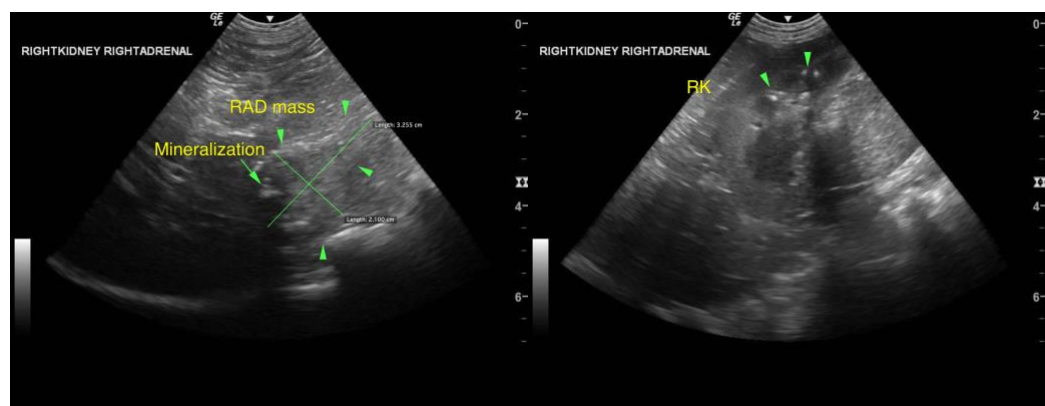
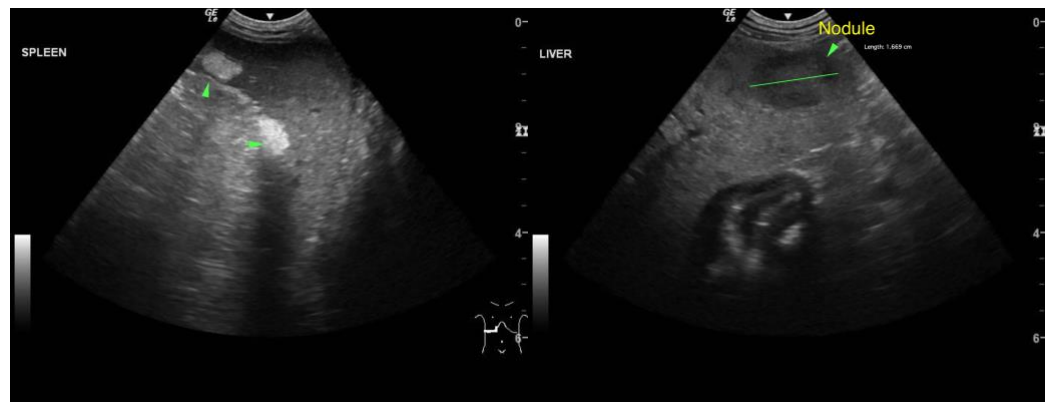
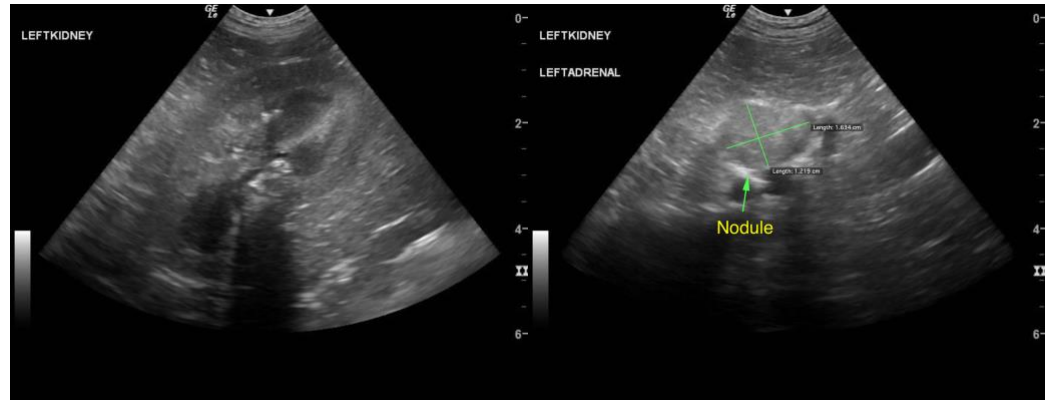
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**SPECIES**

Canine

**BREED**

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**SEX**

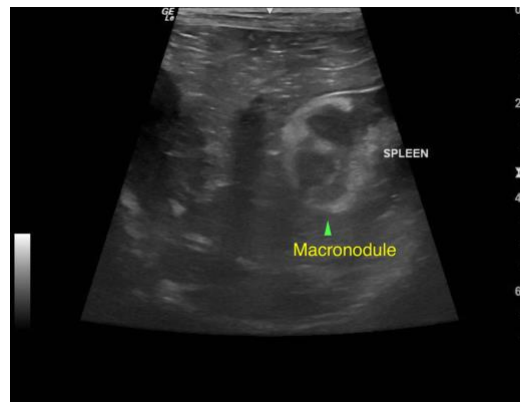
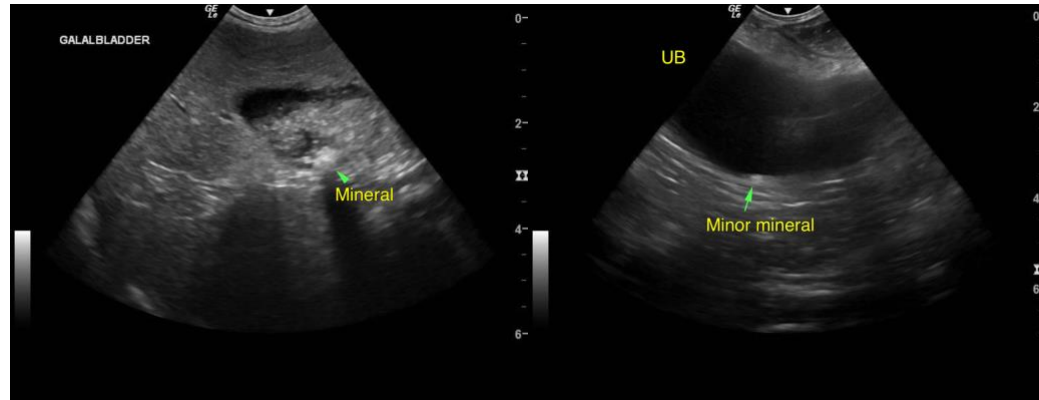
Spayed Female

**AGE**

13 Years

**WEIGHT**

34.6 Pounds



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Feline)

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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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