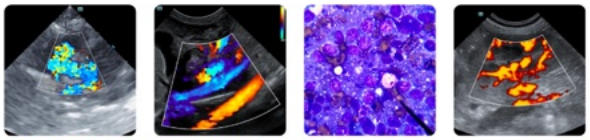


PATIENT

Nixie Orsaio

SPECIES

Canine

BREED

Dachshund

SEX

Female

AGE

14 years

WEIGHT

5.81 kg

INTERPRETED BY

Alicia Angosto Guerrero, DMV, PgDip, MSc.

IMAGING PERFORMED BY

Ryan Bergner. LVT

HOSPITAL NAME

Waterville VC

REFERRING VET

Dr. Duh

INVOICE

74367

DATE

4/9/26

PRESENTING CLINICAL SIGNS

History: Intermittent GI upset. History of a bladder stone since 1/8/26.
Abnormal PE/Chem/CBC/UA Results: Progressively elevated renal values (BUN 37 on 1/9). SG on UA was 1.03 on 1/14.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is normally distended. The wall appears mildly thickened and irregular. The urine is turbid with suspended echogenic material. A large intraluminal calculus is identified, characterized by marked hyperechogenicity with strong distal acoustic shadowing and an irregular, spiculated ("stellate") surface. These features are most consistent with a mineralized urolith, such as calcium oxalate. The bladder neck and proximal urethra have a normal appearance.

The left kidney is normal in shape and size (3.34×2.07 cm), with a cortical thickness of 0.32 cm in the sagittal plane. The cortex is isoechoic compared to the liver parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. Multiple small hyperechoic foci consistent with nephroliths are identified within the renal pelvis/caliceal region. There is no evidence of pyelectasia or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

The right kidney is normal in shape and size (3.66×1.99 cm), with a cortical thickness of 0.31 cm in the sagittal plane. The cortex is isoechoic compared to the liver parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. A large number of small hyperechoic foci consistent with nephroliths are present throughout the caliceal region. There is no evidence of pyelectasia or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

Adrenal Glands

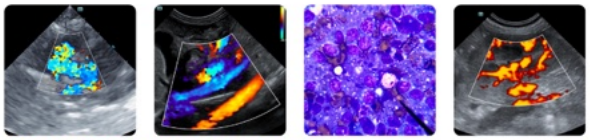
Both adrenal glands show normal shape and echogenicity. Dorsoventral diameters measured in the sagittal plane: The left adrenal gland measures 0.51 cm at the cranial pole and 0.53 cm at the caudal pole. The right adrenal gland measures 0.44 cm at the cranial pole and 0.49 cm at the caudal pole.

Spleen

Splenic thickness is 1.10 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

Liver

The liver is subjectively normal in size, with sharp margins and a regular contour. The hepatic parenchyma is overall homogeneous and isoechoic relative to the falciform fat. Within the caudate liver lobe, two hypoechoic foci are identified, measuring up to 1.87×1.49 cm and 0.79×0.80 cm. No hepatic lymphadenopathy is identified.



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The gallbladder is normally distended. The wall is thin, and the lumen contains a small amount of biliary sludge. No dilation of the cystic duct or common bile duct is identified.

Gastrointestinal

The stomach is empty and folded, containing a small amount of fluid and gas, with a wall thickness of 2.03 mm and preserved layering. The pylorus measures 4.92 mm. The duodenum measures 3.12 mm. The jejunum measures 2.68 mm, and the ileum measures 1.88 mm. No ultrasonographic evidence of inflammation, ileus, or foreign material is identified. The colon measures 1.10 mm and contains formed feces in the descending segment.

Pancreas

The evaluated pancreatic areas do not show evidence of overt inflammation or neoplastic disease.

Free Abdomen

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The iliac trifurcation appears normal.

PRIMARY FINDINGS

- Large urinary bladder calculus with associated sediment and mild mural irregularity
- Bilateral nephrolithiasis (right > left), non-obstructive.

SECONDARY FINDINGS

- Two hypoechoic hepatic areas.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The primary findings are a large urinary bladder urolith and bilateral nephrolithiasis, without evidence of urinary obstruction. The morphology of the bladder calculus (markedly hyperechoic with strong shadowing and irregular/spiculated margins) is most consistent with a mineralized urolith such as calcium oxalate, although definitive composition cannot be determined sonographically.
The presence of mild bladder wall thickening and turbid urine is compatible with chronic irritation and/or secondary cystitis associated with the urolith.

Multiple small nephroliths are present bilaterally, more numerous on the right, without pyelectasia or hydronephrosis, indicating non-obstructive nephrolithiasis. While currently not causing obstruction, these findings may be clinically relevant given the patient's history of progressively increasing renal values.

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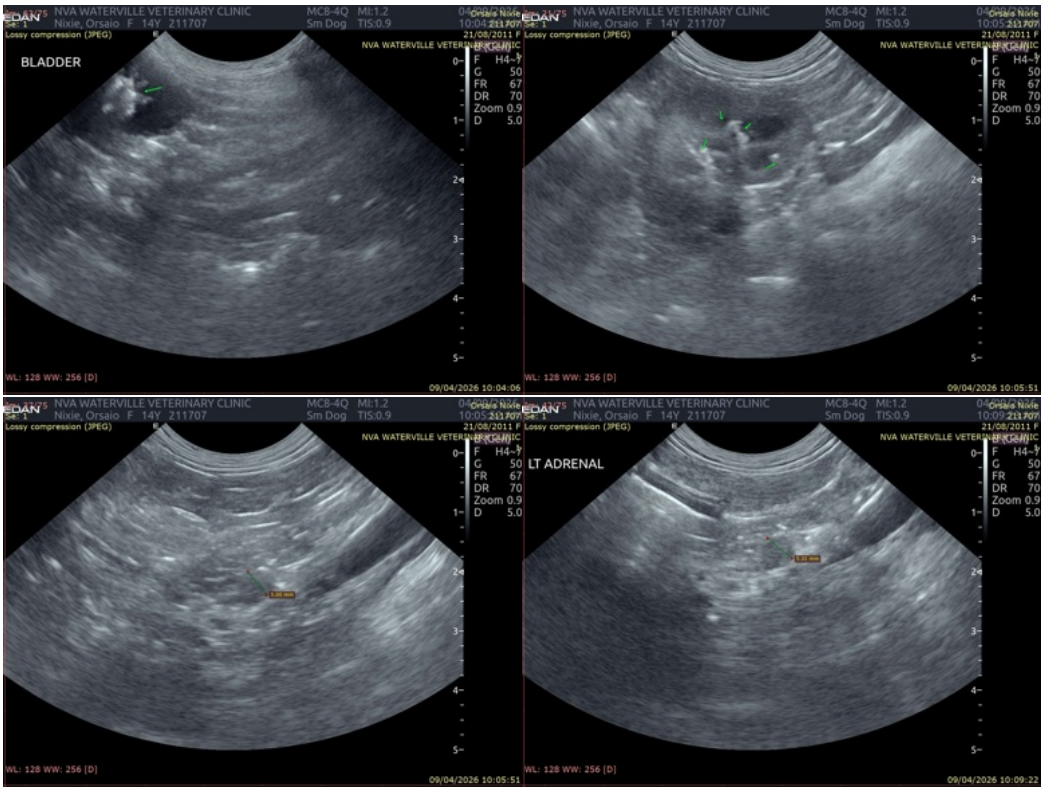
Additionally, two hypoechoic hepatic lesions are identified within the caudate lobe. These are nonspecific and may represent nodular hiperplasia, vacuolar change, or benign regenerative nodules. Given the patient's age, benign etiologies are common; however, imaging alone cannot definitively characterize these lesions.

Recommendations

- Urolith removal should be considered, as calcium oxalate uroliths are not amenable to medical dissolution.
- Urinalysis and urine culture are recommended to assess for concurrent urinary tract infection.
- Monitoring of renal function is advised given the presence of nephrolithiasis.
- Periodic imaging follow-up of hepatic lesions is recommended.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.



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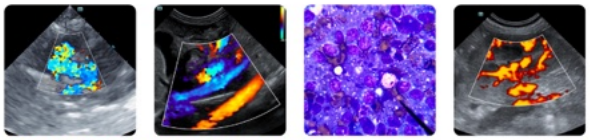

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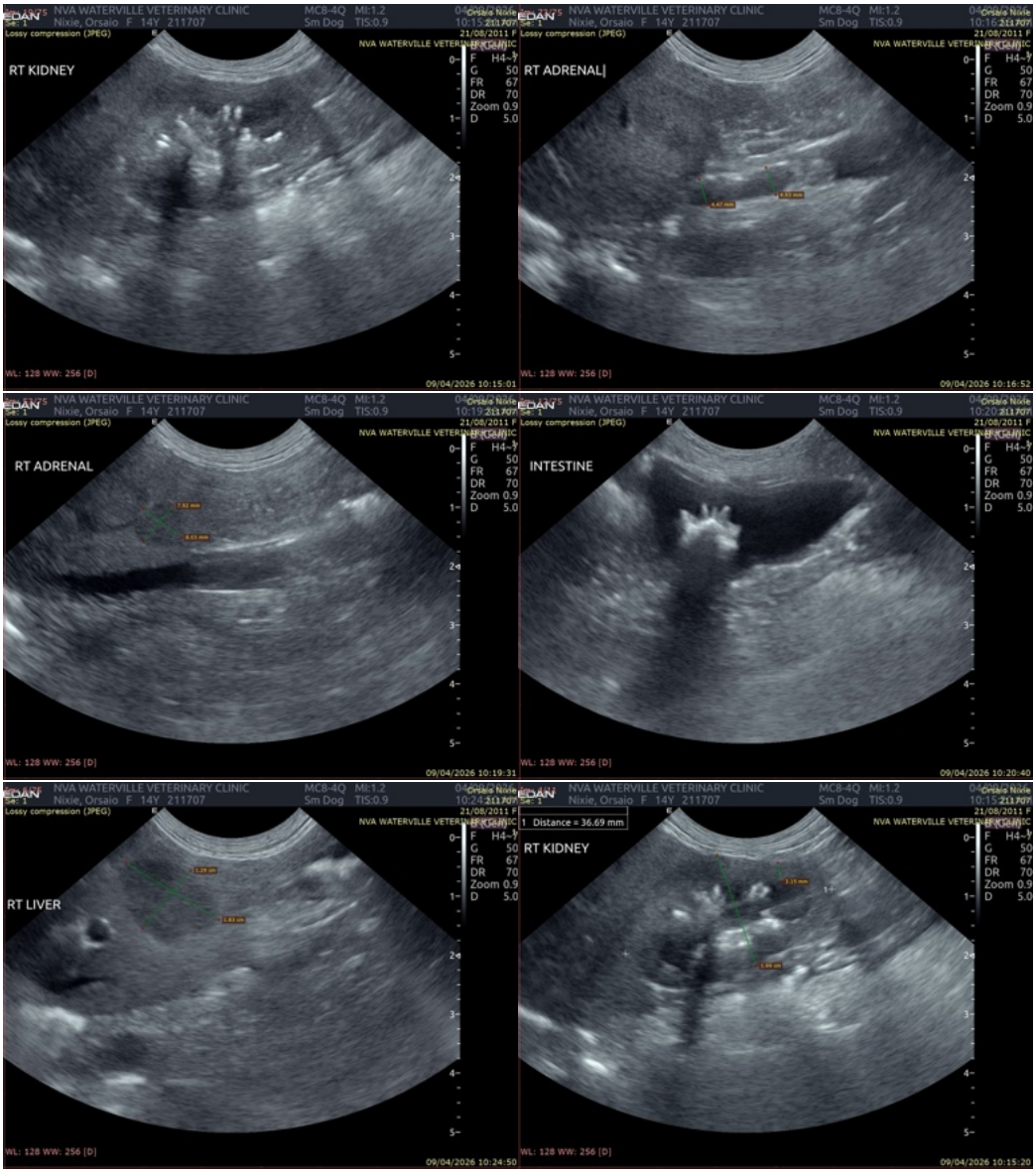

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Alicia Angosto Guerrero, DMV, PgDip, MSc.

info@SonoPath.com