

**DATE PRESENTING CLINICAL SIGNS**

7/5/23

Chronic hematuria-- had calculi @ one time. 2 negative bacterial cultures Cystotomy -- small powder like material lining the bladder. Mucosal Biopsy-- Chronic Inflammation. No response to antibiotics. See previous AUS findings.

PATIENT

Bella Schultz

Current Medications: No current medications.

Lab Results: Histopath bacterial cultures negative x 2. Previous radiographs solitary (?) 1 cm. Calculus not seen on cystotomy. Classic cystitis symptoms (hematuria, pollakiuria, stranguria).

SPECIES

Canine

Date of Previous IntraPet Ultrasound: 10/20/22.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Rottweiler

Imaging Performed By: Rachel Brillhart, RDMS.

LIMITED ULTRASONOGRAPHIC EXAMINATION**SEX**

Spayed Female

Urinary System

The urinary bladder is moderately distended with a large amount of suspended echogenic debris present. The urinary bladder wall appears diffusely thickened measuring 0.55 cm with some mucosal irregularity. In the region of the trigone there is more pronounced mucosal irregularity with a large amount of irregular mineralization. Some of this appears consistent with patchy mineralization along the bladder wall (possibly adhered?). Other areas appear more associated with irregular tissue. This irregular mineralization and tissue extend into the proximal urethra. Some of the focal mineralizations in this area are more pronounced, the largest of which measures at approximately 1.6 cm.

AGE

1/13/19

WEIGHT

130.5 Pounds

The left kidney has a normal shape and size (7.56 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

The right kidney has a normal shape and size (6.84 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Edgewood Vet Hosital

ULTRASONOGRAPHIC FINDINGS**REFERRING VET**

Dr. Moffa

- Diffuse bladder wall thickening with more pronounced bladder wall thickening and irregularity with mineralizations in the trigone region, extending into the proximal urethra. Findings could be consistent with small, adhered stones, bladder wall mineralization, cystitis (bacterial or sterile) or underlying neoplasia.

INVOICE

43772

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

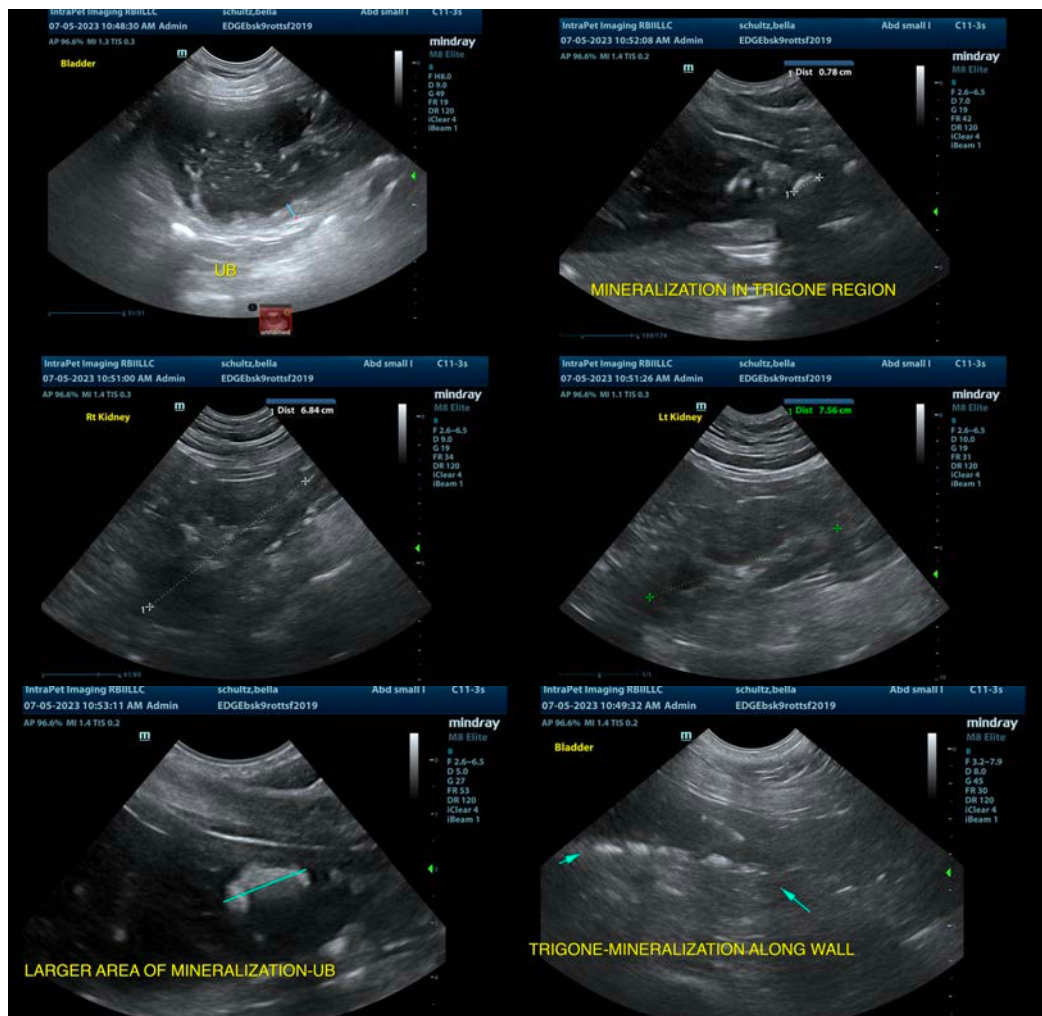
There is a large amount of suspended hyperechoic echogenic debris present as well as diffuse bladder wall thickening. These changes are relatively stable from the previous exam 10/2022. The majority of the mineralization present is visualized in the region of the trigone with what appears to be subjectively more irregular mucosa and some larger areas of mineralization. Based on the presentation, possible differentials would include bacterial cystitis with secondary mineralization or neoplasia with mineralization. Based on the history provided and the multiple negative culture results, bacterial cystitis seems less likely.

The location of the most severe irregularity is concerning for a possible transitional cell carcinoma, which can be predisposed to mineralization. This would be atypical as this is a relatively young dog, and biopsies were reported to have been inflammatory.

It is not clear if the biopsies were obtained from the trigonal region or the more apical area, if any evidence of mineralization was visualized on biopsies, or if any mineralizations could be obtained (Adhered to the mucosa, etc.?) for further evaluation.

My primary concern at this time would be a transitional cell carcinoma with secondary mineralization but this would be an atypical presentation. Encrusting cystitis can be associated with some atypical bacterial bladder infections (*Corynebacterium* and some staph species), but your negative cultures make this less likely (provided they were obtained off antibiotics for several days, etc.).

Lastly, you could have dystrophic mineralization, paraneoplastic mineralization, etc. I would consider a urine BRAF test. If this is positive, my suspicion for a neoplastic process would increase significantly. If it is negative, this is a non-diagnostic test and additional evaluation is warranted. I would also consider a cystoscopic evaluation to try and obtain biopsy samples and possible mineral samples non-invasively. This is an unusual case. Based on the diagnostics performed, a diagnosis would typically be readily available.



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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
info@sonopath.com