



**PATIENT PRESENTING CLINICAL SIGNS**

Babes Kunselman Intermittent pollakiuria 6 months, started seeing ammonium biurate crystals, culture - enterobacter, lab consult indicated unlikely issue, concern for primary liver issue  
Abnormal PE/Chem/CBC/UA Results: USG 1.036, 3+ pro, WBC w/cocci, CBC/CHEM wnl

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine

**Urinary System**

**BREED** The urinary bladder presented uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. Urinary bladder wall thickness measured 0.62 cm. Mineralization or echogenic foci within the thickened areas of urinary bladder wall was not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone. Anechoic urine was present in the lumen with mild dependent luminal mineral extending into the area of the trigone and cystourethral junction. The ureteral papillae were normal. The ureters were not visible which is normal.

**SEX**

FS

**AGE**

8yr

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. Bilateral pinpoint medullary mineral was present. The left kidney measured 7.0 cm in length. The right kidney measured 7.3 cm in length.

**WEIGHT**

84

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.86 cm width at the caudal pole and 0.58 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.76 cm width at the caudal pole.

**INTERPRETED BY**

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

**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.

**IMAGING PERFORMED BY**  
Rebekah Jakum, CVT  
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**Liver/Gallbladder**

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 visualized portal vein appeared to exhibit normal volume and subjective normal cranial branching. The portal vein measured 0.89 cm in width. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild non-organized echogenic debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

**REFERRING VET**

Dr. Holland

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**Gastrointestinal**

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.

**DATE**  
04/03/2023



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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.

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

**SPECIES**

Canine

**Pancreas**

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.

**BREED**

PitBull

**Free Abdomen**

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

**SEX**

FS

**ULTRASONOGRAPHIC FINDINGS**

- Cystitis pattern with mild dependent luminal mineral.
- Normal bilateral kidneys exhibiting pinpoint medullary mineral, no evidence of pyelonephritis.
- Normal volume liver.
- Gallbladder debris (non-mucocele).

**AGE**

8yr

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**WEIGHT**

84

No overt evidence of intra/extra hepatic macroscopic shunt. Correlation with pre and post prandial bile acids if clinically indicated could be considered. Based on C/S results, a higher dose/shorter frequency antibiotic regimen may prove more effective at eliminating underlying/embedded infection i.e., enrofloxacin 20 mg/kg PO SID x 3-5 days. A urinary diet is suggested. Assessment of the vulva and vaginal vault for evidence of structural pathology which may predispose to ascending infection may be considered.

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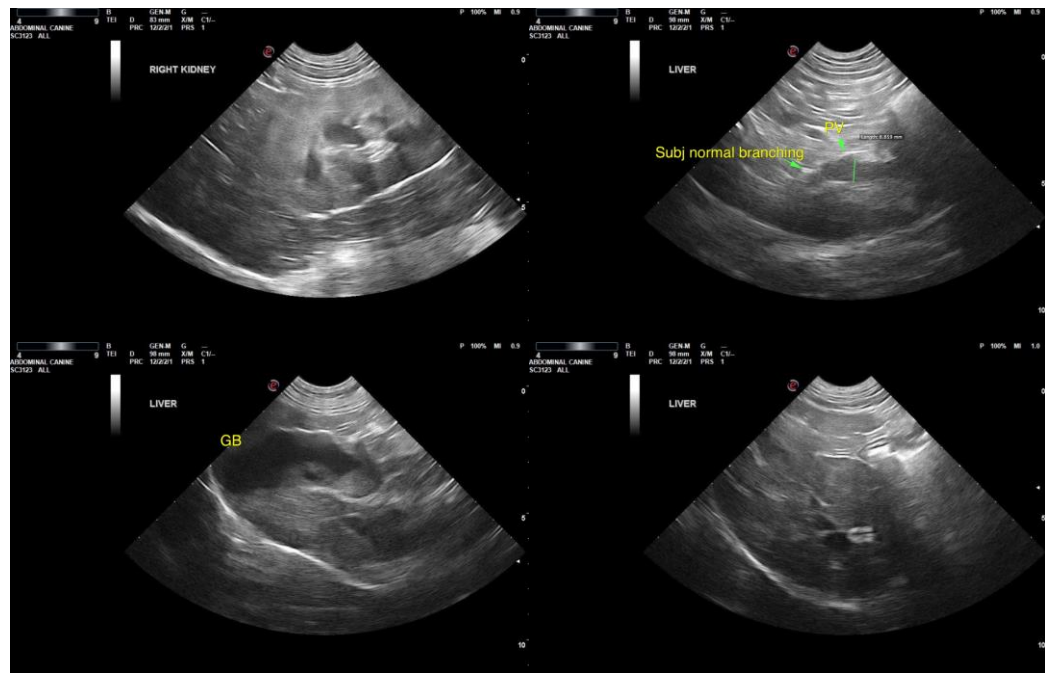
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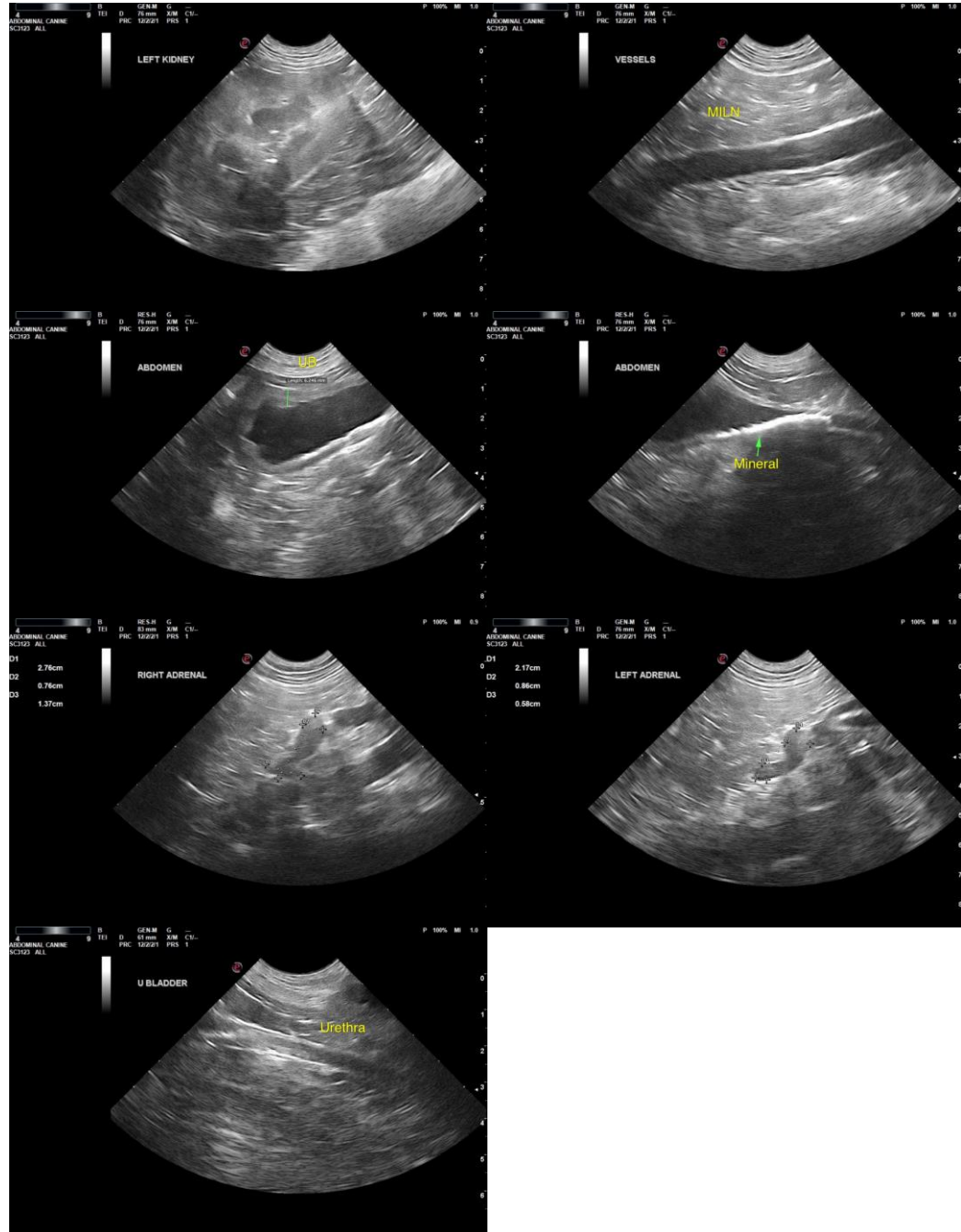
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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**BREED**

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**SEX**

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