

**DATE PRESENTING CLINICAL SIGNS**

10/13/22 Pigmenturia since 9/27 (2 weeks), UTI, elevated renal values (1.5 yr duration). Normal PE

PATIENT

Finley Bozel

Current Medications: Cefpodoxime 300mg SID x 14d; Carprofen 100mg SID x 14 days
 Lab Results: 2/2021- Lyme positive, 4/2021- Cre 2.1 (<1.8) BUN 23 (<27); USG 1.020 no proteinuria. 4/2021- U. culture mixed growth suspected to be contamination. 4/2022- Cre 1.8 (<1.8), BUN 19 (<27)
 9/2022- hematuria, Cre 1.8 (<1.8), BUN 14 (<27); USG 1.028, RBC >50/HPF, WBC 3-5/HPF rods on sediment. 10/2022- pigmenturia remains post 2 week cefpodoxime @ SID but RBCs >50/HPF, WBC 2/HPF and no bacteria noted
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: IV.
 Stat Report: Not requested.

SPECIES

Canine

BREED

Bernese Mountain Dog

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

AGE

11/6/16

The left kidney is large (6.33 cm) and rounded. The kidney is hydronephrotic with a severely dilated renal pelvis and minimal renal parenchyma. The renal pelvis measures 4.95 cm x 3.91 cm. The proximal ureter appears dilated, measuring 1.48 cm in diameter. There is echogenic material visualized within the kidney and within the proximal ureter. This does not significantly color flow, so it is suspected to be debris.

WEIGHT

79 Pounds

The right kidney has a normal shape and size (6.52 cm) with mild pyelectasia at 0.28 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal in size measuring 0.62 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Timonium AH

The right adrenal gland is normal in size measuring 0.58 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

REFERRING VET

Dr. Montessi

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

INVOICE

42043

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional prominent lymph nodes. A lymph node in the mesenteric root measures 0.41 cm in diameter. The omentum is of normal echogenicity.

Other

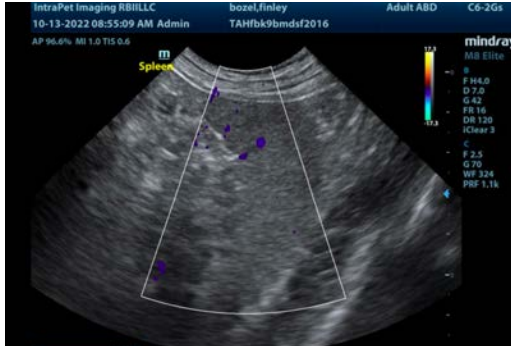
Ringdown artifact is seen at the level of the diaphragm.

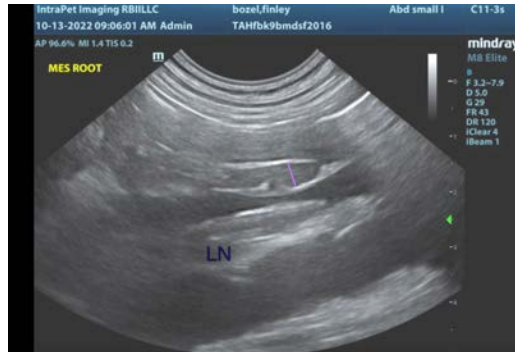
ULTRASONOGRAPHIC FINDINGS

- Hydronephrotic left kidney – An obvious cause of the hydronephrosis is not visualized. The proximal ureter appears dilated. No point of obstruction is visualized. No nephroliths are visualized.
- Mild echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Mild right-sided pyelectasia – Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Ringdown artifact visualized at the level of the diaphragm – This can sometimes be seen with pulmonary parenchymal disease. Recommend 3-view thoracic radiographs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The left kidney appears hydronephrotic. An obvious cause for this severe renal pelvic dilation is not readily visualized. No stones are seen. Possible differentials would include a stricture, a tumor, possibly cellular debris. Recommend a urinalysis, culture, and blood pressure evaluation. Ideally, a contrast study (contrast CT scan or possibly an excretory urogram) could help to delineate the cause and the location of the dilation, but I suspect surgical removal of the kidney may be indicated. There is no significant inflammation or free fluid around the kidney, so this has likely been a chronic issue and it does not appear overtly inflamed.





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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