


**PATIENT PRESENTING CLINICAL SIGNS**

**Natty Groark**  
**SPECIES** Canine  
**BREED** Austr Shepherd

History: Seen for wellness exam on 8/4/23. Exam was WNL at that time but she was having stranguria. Accuplex neg x 4, normal CBC/chem, UA - 1.048, 11-20 wbc's and rbc's (free catch), 2+ protein, bilirubin and occult blood. Treated with amoxi/clav with no improvement. Returned today with acute onset of severe lethargy/possible collapse, continued stranguria. Was initially tachycardic on presentation. cbc/chem were WNL, chest rads and abd rads were done. See rad report in section below. Digital vaginal/rectal exams reveals a smooth structure apparently associated with the clitoris.

**SEX** Spayed Female  
**AGE** 7 years, 6 mos

Abnormal PE/Chem/CBC/UA Results/Findings: Thorax and abdomen, August 16, 2023: 8 images (3 view thoracic study and orthogonal views of the abdomen) are available for review. The images are correctly labeled. The patient is well-positioned and the pertinent anatomy is completely included. The rectum is dorsally displaced in the pelvic canal. There are no significant findings in the body wall soft tissues, visible skeletal structures, pleural space, pulmonary parenchyma and vessels, cardiovascular structures, mediastinum, peritoneal cavity, gastrointestinal tract, abdominal organs, and urinary bladder.

**CONCLUSIONS AND RECOMMENDATIONS:**

1. The dorsal displacement of the rectum may be artifactual or the result of a mass-effect secondary to urethral, vaginal or pelvic musculature pathology. A CT of the pelvic region would be needed for further differentiation.
2. Radiographically unremarkable thorax and abdomen

**INTERPRETED BY ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Karen Ebersole, DVM,  
 DABVP (Canine and  
 Feline)

**IMAGING PERFORMED BY**

Megan Odgers VMD

**HOSPITAL NAME**

Pennsauken AH &  
 Urgent Care

**REFERRING VET**

Alex Witt VMD

**Urinary System**

The urinary bladder was moderately full of primarily anechoic urine, with a very small amount of suspended echogenic sediment. The bladder walls were normal in thickness and layering. The ureteral papillae appeared normal and were well-visualized. The trigone appears normal, free of masses. The pelvic urethra was not well-visualized.

Both kidneys were a normal size and shape, with a smooth capsule contour. A normal 1:3 cortex to medulla ratio was maintained. The echogenicity of the cortex was normal. There was a hyperechoic corticomedullary band, consistent with a medullary rim sign. This is a non-specific finding. It has been associated with interstitial nephritis, hypercalcemia, tubular necrosis, lymphoma and Leptospirosis. However, it is non-specific and can be seen in normal kidneys. The left kidney measured 5.40 cm in length. The right kidney measured 6.00 cm in length.

The iliac trifurcation was normal in structure with no overt lymphadenopathy. There was no overt pathology in the sublumbar region that was visualized.

**Adrenal Glands**

Both adrenal glands were visualized and found to be normal in size, and shape for the age and breed. The parenchyma displayed normal echogenicity. There was no evidence of capsular expansion or pericapsular inflammation. There were no nodules or masses visible. The left adrenal gland measured 4.00 mm at the caudal pole and 5.00 mm at the cranial pole. The right adrenal gland measured 6.00 mm at the caudal pole and 4.00 mm at the cranial pole.

**INVOICE**

14135

**DATE**

8.16.23

**Spleen**

The spleen was normal in size, shape, and position. There was a smooth capsule contour. The parenchyma was finely textured and homogeneous. There were no visible masses, nodules or evidence of infiltrative disease.



**PATIENT** *Liver/Gallbladder*

Natty Groark

**SPECIES**

Canine

**BREED**

Austr Shepherd

**SEX**

Spayed Female

**AGE**

7 years, 6 mos

**WEIGHT**

13 kg

**INTERPRETED BY**

Karen Ebersole, DVM,  
DABVP (Canine and  
Feline)

**IMAGING**

**PERFORMED BY**

Megan Odgers VMD

**HOSPITAL NAME**

Pennsauken AH &  
Urgent Care

**REFERRING VET**

Alex Witt VMD

**INVOICE**

14135

**DATE**

8.16.23

The liver was subjectively normal in size with mildly irregular capsule contour. The hepatic parenchyma was mildly heterogenous with moderate coarse echotexture. The parenchymal changes are subjectively benign remodeling and likely represent an aging change. The hepatic vasculature was normal in volume and structure. The gall bladder was normal in size and shape with a moderate amount gravity-dependent echogenic sludge; this is not a mucocele presentation.

**Gastrointestinal**

The stomach was largely empty with normal size shape and position. The stomach wall was normal in thickness and maintained appropriate layering. The small intestine displayed normal curvilinear patterns throughout. Subjectively normal wall thickness and layering was maintained. Normal peristalsis was present. The visible colon wall was normal in thickness and layering, there were no visible masses or focal lesions.

**Pancreas**

The pancreas was normal size and contour with a mildly irregular capsule contour. The parenchyma was isoechoic-to-heterogenous in echotexture. There were no signs of inflammation in the mesentery around the pancreas.

**ULTRASONOGRAPHIC FINDINGS**

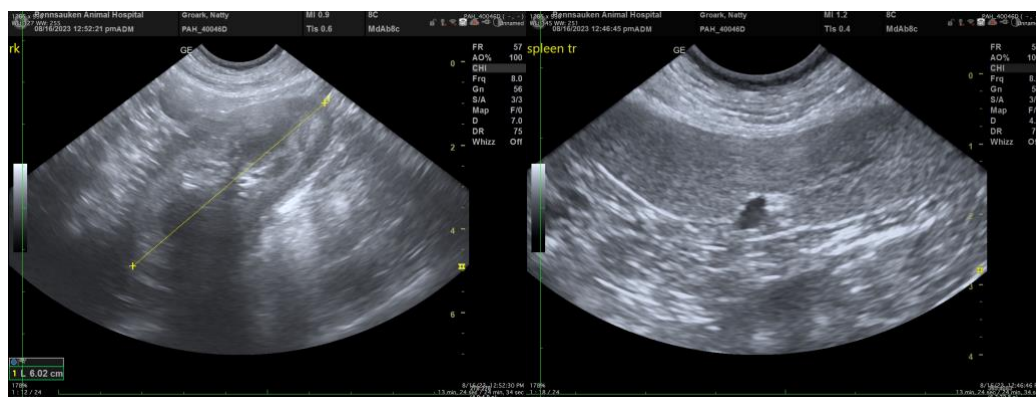
- Medullary rim sign in both kidneys
- Age related liver changes with moderate gallbladder sludge (non-mucocele presentation)
- Normal bladder to the level of the trigone
- Normal adrenal glands

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The medullary rim sign is nonspecific and can be seen in both normal and abnormal kidneys. When associated with renal pathology, it has been linked with interstitial nephritis, hypercalcemia, tubular necrosis, lymphoma and Leptospirosis. However, it can be seen in normal kidneys as well.

The remainder of the abdomen is largely as expected for an older dog. The cause of the stranguria is likely located within the pelvic canal, and would be best visualized with a CT. Scoping of the lower urinary tract could also provide answers, as well as opportunity for biopsy.

The cause of the extreme lethargy and possible collapse is not clear and may or may not be related to the stranguria. I recommend a full CNS exam and evaluate for possible musculoskeletal causes as well.





**PATIENT**

Natty Groark

**SPECIES**

Canine

**BREED**

Austr Shepherd

**SEX**

Spayed Female

**AGE**

7 years, 6 mos

**WEIGHT**

13 kg

**INTERPRETED BY**

Karen Ebersole, DVM,  
DABVP (Canine and  
Feline)

**IMAGING  
PERFORMED BY**

Megan Odgers VMD

**HOSPITAL NAME**

Pennsauken AH &  
Urgent Care

**REFERRING VET**

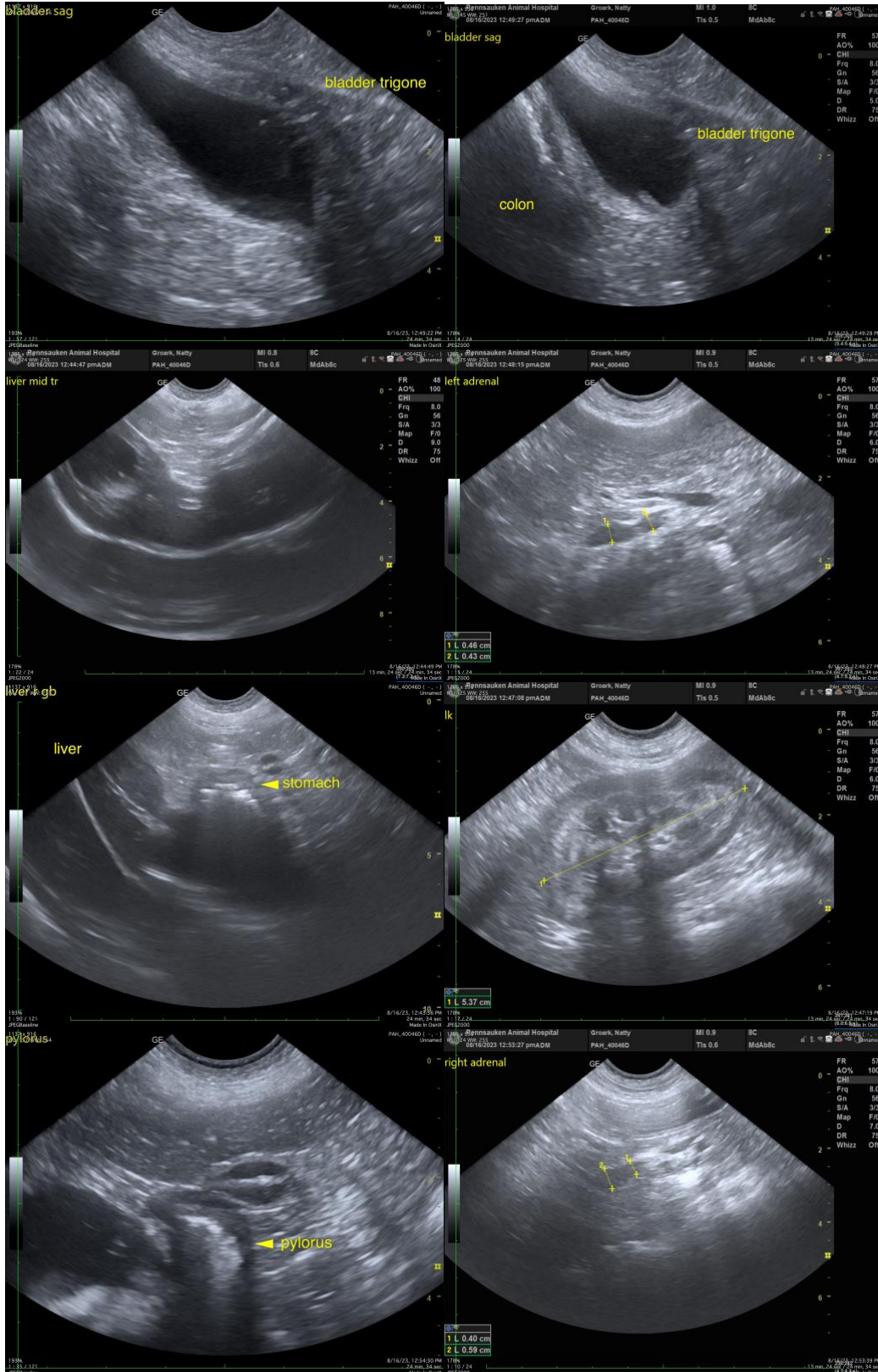
Alex Witt VMD

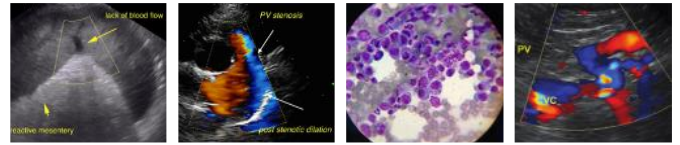
**INVOICE**

14135

**DATE**

8.16.23





**PATIENT**

Natty Groark

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.

**SPECIES**

Canine

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.

**BREED**

Austr Shepherd

Karen Ebersole, DVM, DABVP (Canine and Feline practice)  
info@SonoPath.com

**SEX**

Spayed Female

**AGE**

7 years, 6 mos

**WEIGHT**

13 kg

**INTERPRETED BY**

Karen Ebersole, DVM,  
DABVP (Canine and  
Feline)

**IMAGING  
PERFORMED BY**

Megan Odgers VMD

**HOSPITAL NAME**

Pennsauken AH &  
Urgent Care

**REFERRING VET**

Alex Witt VMD

**INVOICE**

14135

**DATE**

8.16.23