



**PATIENT**

Shelly Yakubova

**SPECIES**

Canine

**BREED**

Sheltie

**SEX**

Female

**AGE**

14 Years

**WEIGHT**

20 Pounds

**PRESENTING CLINICAL SIGNS**

Hx of UTI diagnosed with UA and clinical signs about a month ago. Tx with clavamox (~ 10mg /kg BID 5 days). Signs resolved, but about 2 weeks after discontinuing the antibiotic, Shelly started to lose her appetite, became PUPD, vomited 3x over a week. Presented today with 2 lbs of weight loss, afebrile, CBC Chem in-house was unremarkable, UA in house revealed pyuria with rods noted (C+S pending). Tx today: IV fluids, started clavamox @ 20mg / kg TID, cerenia. Suspect early pyelonephritis based on newer signs.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 4.0 cm. The left kidney measured 4.16 cm.

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.50 cm. The left adrenal gland measured 0.50 cm.

**IMAGING PERFORMED BY**

Dr. Michael Ferber

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

**HOSPITAL NAME**

East Meadow Vet Center

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**REFERRING VET**

Dr. Michael Ferber

**INVOICE**

46519

**DATE**

4/8/23

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.



**PATIENT**

Shelly Yakubova

**SPECIES**

Canine

**BREED**

Sheltie

**SEX**

Female

**AGE**

14 Years

**WEIGHT**

20 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Michael Ferber

**HOSPITAL NAME**

East Meadow Vet Center

**REFERRING VET**

Dr. Michael Ferber

**INVOICE**

46519

**DATE**

4/8/23

**Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**ULTRASONOGRAPHIC FINDINGS**

- Normal abdomen

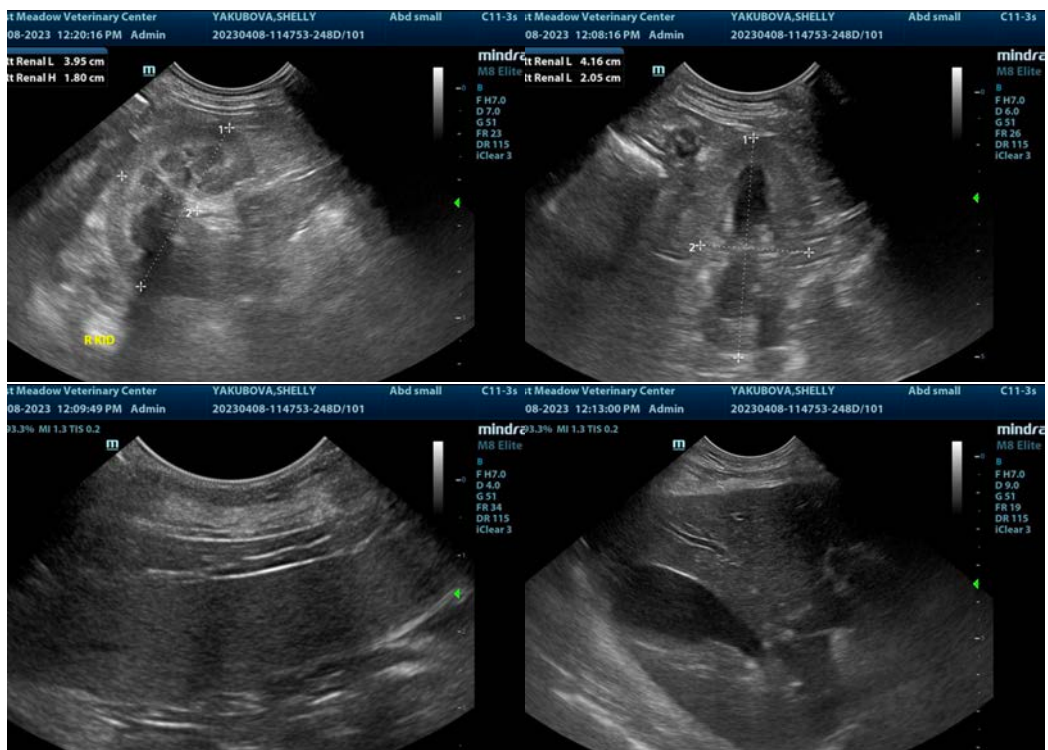
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of significant pathology. Maldigestion panel, three view chest radiographs and full CNS examination is recommended to examine for occult disease that could be responsible for the weight loss. Evaluation for competitive eating environments should also be considered.

Structurally, there is no evidence of pyelonephritis on this patient. However, recurrent UTI is likely a persistent issue, and possibly predisposing issues such as pathology within the vaginal vestibule, recessed vulva, urine pooling or similar should be ruled out as a potential.

**Chronic UTI Protocol**

I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.





**PATIENT**

Shelly Yakubova

**SPECIES**

Canine

**BREED**

Sheltie

**SEX**

Female

**AGE**

14 Years

**WEIGHT**

20 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Michael Ferber

**HOSPITAL NAME**

East Meadow Vet Center

**REFERRING VET**

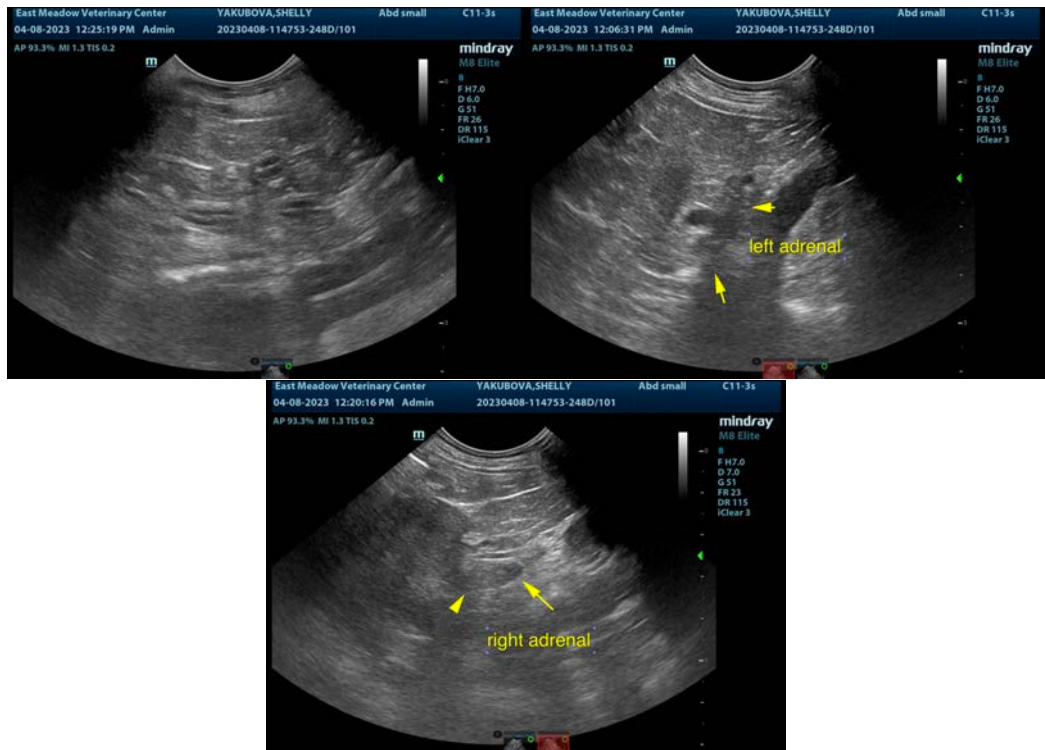
Dr. Michael Ferber

**INVOICE**

46519

**DATE**

4/8/23



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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com

[info@SonoPath.com](mailto:info@SonoPath.com)