

**DATE**

6/24/22

**PRESENTING CLINICAL SIGNS**

Dripping urine, licking at vulva.  
Current Medications: Baytril 136mg 1.5 SID, Carprofen 100mg BID.  
Lab Results: UA- severe UTI.  
Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Torbugesic IV.  
Stat Report: Not requested.  
Imaging Performed By: Stephanie Pearce RDCS, RVT.

**PATIENT**

Tilly Corbett

**SPECIES**

Canine

**BREED**

German Shepherd

**SEX**

Spayed Female

**AGE**

10/7/15

**WEIGHT**

105.2 lbs

**INTERPRETED BY**

Lisa Carioto, DVM,  
DVSc, Diplomate  
ACVIM

**HOSPITAL NAME**

North East AH

**REFERRING VET**

Dr. Hanlin

**INVOICE**

31239

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

Although the urinary bladder is not fully filled, the wall is subjectively thicker than normal and mildly irregular. A focal area of mucosal thickening arising at the junction of the ventral wall and apex is visualized and extends along the ventral wall. An echogenic, soft tissue structure, with a frond-like projection is observed extending into the lumen of the bladder. It is located at the cranial aspect of the ventral wall. A small amount of free-floating echogenic debris is noted within the bladder lumen.

Mass-like structure:

- serosa to tip of mass: 1.11 cm
- mucosa to tip of mass: 0.70 cm; the structure is mildly vascularized when evaluated with colour Doppler

A much smaller echogenic structure is present mid-way along the dorsal wall (0.28 cm in width x 0.62 cm in length). The latter is suggestive of a polyp in one view, but is more supportive of a mineralization in all other views. Acoustic shadowing is visualized, i.e., cystoliths are not evident.

The mucosa of the apex, ventral and dorsal walls are mildly irregular.

- Apex measures 0.12 cm
- Dorsal wall measures 0.23 cm
- Ventral wall (toward trigone) 0.41 cm

The sonographic appearance of the mucosa and echogenic "mass-like" structure are highly suggestive of a polypoid cystitis, however, neoplasia, such as a transitional cell carcinoma, cannot be excluded.

Trigone: no abnormalities

Proximal urethra: no obvious abnormalities. However, as one moves distally, the wall of the urethra becomes more prominent. The lumen remains patent. There are no signs of a mass.

Uterine stump: No abnormalities are noted

**Kidneys**

The **left** kidney measures 8.07 cm. The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Mild mineralizations are noted, without signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic. Blood flow is within normal limits. The surrounding mesentery is not hyperechoic.

The **right** kidney measures 7.47 cm. Findings are similar to the left kidney.

**Aortic bifurcation/trifurcation**

No abnormalities observed.

### **Adrenal Glands**

The **left** adrenal gland measures 0.57 cm at the cranial pole, 0.66 cm at the caudal pole and 2.57 cm in length. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The **right** adrenal gland measures 0.68 cm at the cranial pole, 0.58 cm at the caudal pole and 2.81 cm in length. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

### **Spleen**

Moderate to severe splenomegaly. The capsule is smooth. The spleen is otherwise within normal limits in architecture, and echogenicity. The echotexture is slightly granular, however, this appears to be associated with the sensitivity of the probe being used as it was not repeatable from one probe to the next. Occasional pinpoint hyperechoic foci are noted scattered haphazardly throughout the parenchyma, which is consistent with mineralizations. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

### **Liver**

There are no obvious signs of hepatomegaly and its borders are smooth and sharp. The liver's echotexture is homogeneous and it is within normal limits in echogenicity. Focal lesions are not observed and no abnormalities are observed with the hepatic vessels.

The gallbladder wall is within normal limits in thickness and echogenicity. A small amount of echogenic material is present within the GB. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction.

### **Gastrointestinal**

Gas is present within the lumen of the stomach. The gastric wall is within normal limits in thickness and the wall layers are well defined. No obvious abnormalities are observed with its peristalsis.

The small intestinal wall thickness is within normal limits and the definition of the wall layers is preserved. Abnormally dilated loops of bowel are not observed.

The colonic wall is not thickened and mural detail is considered normal. Formed stools are present within the colon.

There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction in the gastrointestinal tract.

### **Pancreas**

No obvious abnormalities are observed with shape, contours, echogenicity or echotexture for a dog of Tilly's age.

### **Other**

#### **Lymph nodes**

No abnormalities are observed

**Abdominal effusion** is not visualized.

## ULTRASONOGRAPHIC FINDINGS

- **Urinary system**
  - **Urinary bladder:** A *polyploid cystitis* secondary to a chronic bacterial cystitis is suspected based. The caveat is that very slight Doppler flow is present, therefore, *neoplasia*, such as a transitional cell carcinoma, cannot be excluded.
  - A *mild urethritis* and secondary urethral sphincter incompetence may be causing the incontinence and dribbling of urine.
  - No abnormalities are noted with the uterine stump.
- **Kidneys:** Mild mineralizations are noted bilaterally, however clinically significant abnormalities are not observed. There are no obvious signs of pyelonephritis.
- **Spleen:** *Splenomegaly*, without focal lesions or abnormalities in echotexture or echogenicity. Splenomegaly is often observed in German shepherd and German shepherd mix breed dogs. The cause of splenomegaly in this breed is not known, but is not considered clinically significant. Further diagnostics are not considered necessary,

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A repeat urinalysis, culture and sensitivity are recommended to ensure response to enrofloxacin.

Treatment for polyploid cystitis: 6-12 weeks, or longer, may be required. A sonographic re-evaluation of the urinary bladder is suggested to ensure the soft tissue structures are regressing with antibiotic therapy. A recheck is also recommended prior to discontinuation of antibiotics.

Sterile, digital vaginal exam, if not already performed

+/- BRAF test, however, false negative results can occur

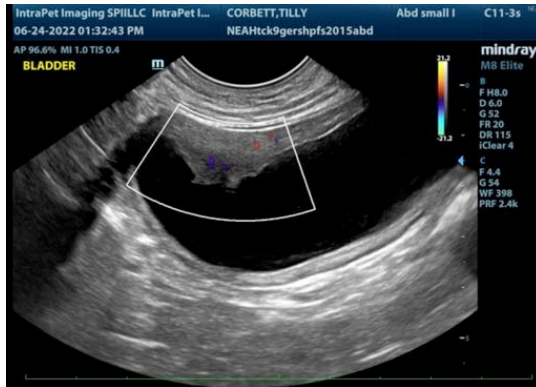
Cystoscopy and biopsies are ideal if no response to antibiotics

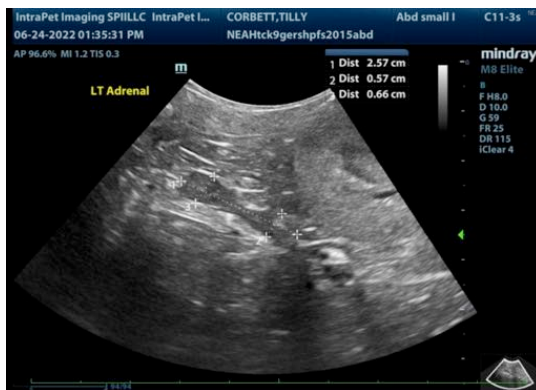
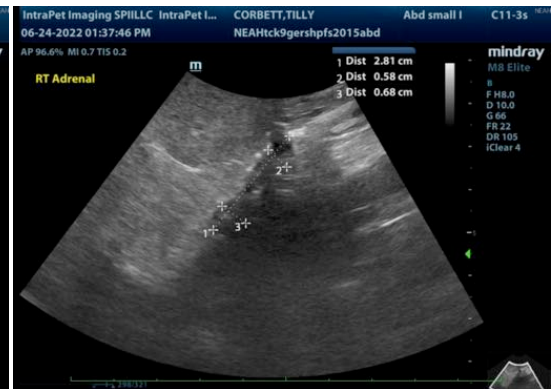
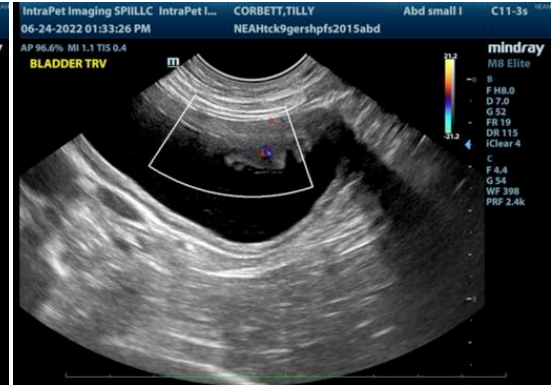
Basic hygiene should be pursued on a daily basis with chlorhexidine 0.025-0.05%, rinsed with luke warm water, and ensuring the area is kept dry to decrease risk of infection. Any fur in the surrounding area should also be trimmed to decrease risk of bacterial wicking.

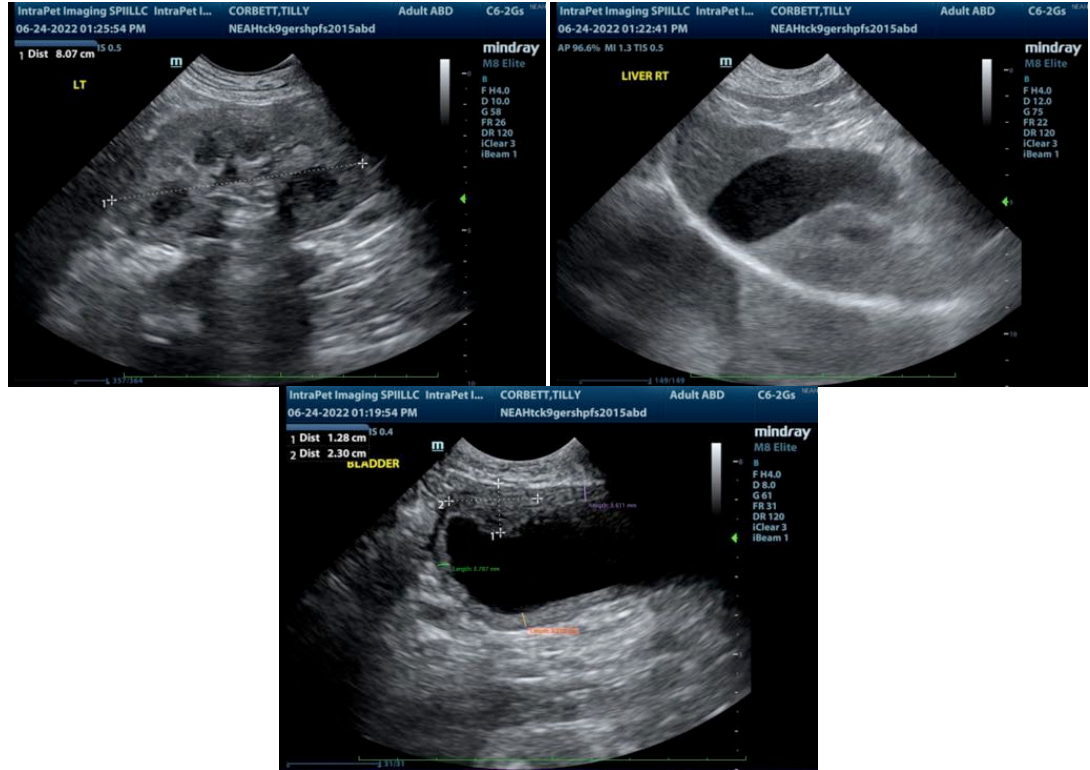
Other: ensure adequate water consumption, allow for frequent voiding, if once daily antibiotic being administered, give at night, etc.

Analgesia is suggested, including gabapentin.

If no or little effect has been noted with the current NSAID, a different one from a different family may be considered.







The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

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