



# Arizona Veterinary Specialists' News

## DOES EVERY UTI NEED TREATMENT?

By Melissa Riensche, DVM, DACVIM

Internal Medicine at Desert Veterinary Medical Specialists



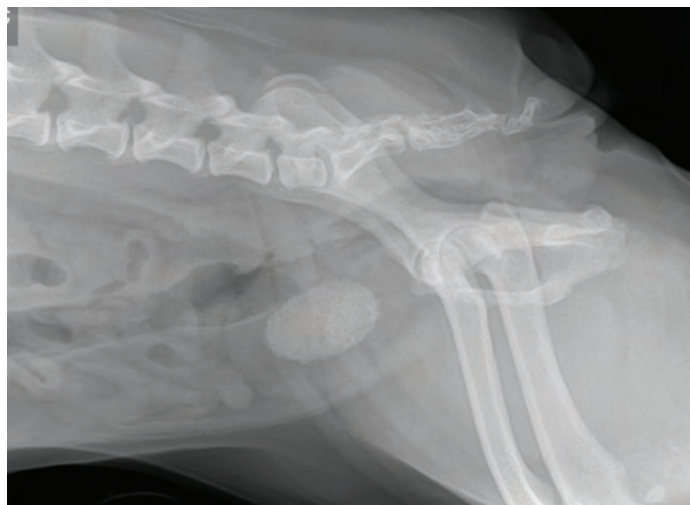
Dr. Riensche is board-certified with the American College of Veterinary Internal Medicine and has particular interests in nephrology, gastroenterology, infectious disease, respiratory medicine, and endocrine diseases.

Urinary tract infections (UTI) are one of the most common problems we manage in veterinary medicine, especially in dogs. Simple, uncomplicated urinary tract infections are easy to manage. Choose an appropriate antibiotic and within a few days everything is back to normal. But what happens when the clinical signs do not resolve, or the urinalysis still shows bacteria and inflammation?

First, it is important to perform a urine culture each time you suspect a urinary tract infection to make sure that you are choosing an appropriate antibiotic. Then, check that the infection is cleared by obtaining a second culture several days after finishing the course of antibiotics.

This second culture sometimes reveals a second infection that was resistant to the original antibiotic but was outgrown in the initial culture.

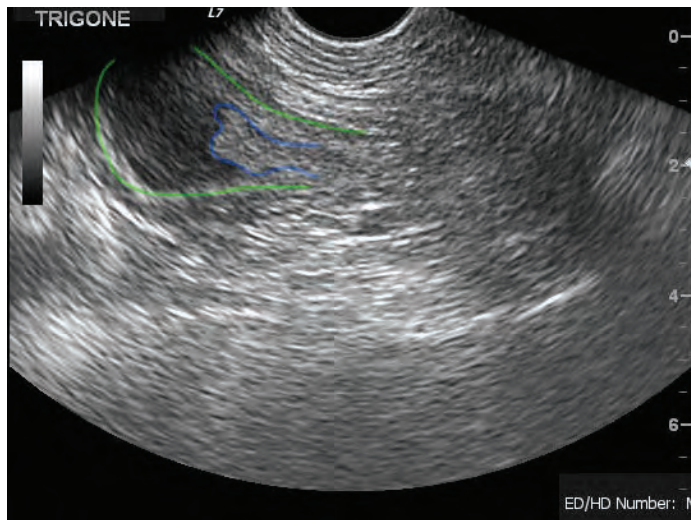
If your culture reveals the same organism, it is time to start looking for an underlying cause. Radiographs (see figure 1) might reveal an obvious cause such as a bladder stone. In male dogs it is important to evaluate the prostate with both x-rays and rectal exam. If the prostate is enlarged and painful, consider prostatitis and



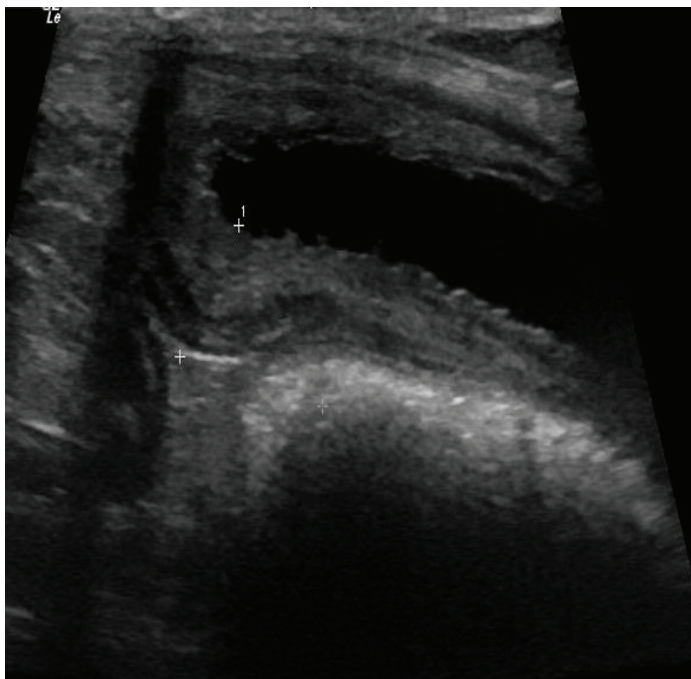
**Figure 1** Lateral abdominal radiograph with a bladder stone

treat with fluoroquinolones or other antibiotics that have good penetration into that tissue. An abdominal ultrasound can also be used for further evaluation. You can identify cancerous masses (see figure 2), polyps, or a chronically thickened bladder wall (figure 3). If you can identify a nidus for infection, then focus your efforts on resolving that nidus, followed by treatment of the infection with antibiotics based on the culture.

...continued from page 1



**Figure 2** Bladder mass



**Figure 3** Thickened bladder wall measured 0.88cm thick

Most of our patients present with classic signs of a urinary tract infection such as stranguria, hematuria, pollakiuria, and urinating in inappropriate places. However, how do you proceed with a patient that you diagnose with an infection on a routine wellness screening that is exhibiting no clinical signs of infection? These patients present a unique challenge, especially when they have a resistant strain of bacteria. In some cases, as we attempt to treat these infections, we cause escalating resistance patterns and are forced into choosing antibiotics with increasing numbers of side effects.

In human medicine, there is increasing evidence that we should not be treating non-clinical urinary tract infections in many cases. Last year at ACVIM Forum, the infectious disease study group proposed that non-clinical urinary tract infections may not need treatment in most patients. In the last several years we have become more comfortable that urinary tract infections caused by *Enterococcus* may not require treatment, and this is expanding to other bacteria as well. It is important to consider each patient individually. A thorough search for a nidus or predisposing factors such as Cushing's disease is still important. Evaluate what the risk is to an individual patient if a basic urinary tract infection were to progress. For example, it might be more important to treat a urinary tract infection in a patient with one kidney because pyelonephritis could have catastrophic results. It will take years of retrospective case evaluation to help guide best practices with this complex topic. At this time it is key to evaluate each patient and infection individually and make the best decision you can in each situation.



LEADERS IN SPECIALTY CARE

June 2017

**Arizona Veterinary Specialists, LLC**  
**86 West Juniper Avenue**  
**Gilbert, Arizona 85233**

Phone: 480.635.1110  
Fax: 480.892.0540

***Our mission is*** to enhance the quality of our patients' lives, to strengthen the human-animal bond, and to provide a safe and stimulating work environment for all of our team members.

## AVS CORE VALUES

### INNOVATION

We will strive to discover and share knowledge that will continuously improve the veterinary profession.

### EXCELLENCE

At Arizona Veterinary Specialists, our standard is excellence in all that we do and the way in which we do it.

### COMPASSION

The spirit of all our relationships will be driven by compassion.

### PATIENT CARE

We are committed to providing compassionate, ethical, and quality care to our patients. We treat them as if they are members of our own families.

### INTEGRITY

We will conduct ourselves in a manner that will instill confidence and trust in all of our interactions.



## Services Offered at Arizona Veterinary Specialists, LLC

### Arizona Veterinary Dental Specialists, PLLC

#### Dentistry

- ◆ Periodontics
- ◆ Dental digital radiography
- ◆ Root canals
- ◆ Nasal disease treatment
- ◆ Oral disease treatment
- ◆ Oral surgery
- ◆ Orthodontics
- ◆ Restoration
- ◆ Professional teeth cleaning
- ◆ Maxillofacial surgery
- ◆ Oral fractures
- ◆ Fractured teeth treatment
- ◆ Malocclusion treatment
- ◆ Crown therapy
- ◆ In house lectures
- ◆ Telephone radiographic consultation
- ◆ Bite evaluation

### Arizona Veterinary Oncology, PLLC

#### Radiation Oncology

- ◆ Conventional Radiation Therapy
- ◆ Stereotactic Radiosurgery
- ◆ I-131 radioactive iodine treatment

#### Medical Oncology

- ◆ Chemotherapy
- ◆ Immunotherapy
- ◆ Cryotherapy
- ◆ Oncologic surgery
- ◆ Clinical trials

### Desert Veterinary Medical Specialists

#### Internal Medicine

- ◆ Endoscopy
  - Bronchoscopy
  - Bronchoalveolar lavage
  - Colonoscopy
  - Cystoscopy
  - Foreign body retrieval
  - Gastroduodenoscopy
  - PEG tube placement
  - Rhinoscopy
- ◆ Endocrine disorders
- ◆ Emergency consultations
- ◆ Blood and plasma transfusions
- ◆ Gastrointestinal diseases
- ◆ Genitourinary disorders
- ◆ Hepatic diseases
- ◆ Infectious diseases
- ◆ Intensive care treatment
- ◆ Immune-mediated diseases
- ◆ Nutrition consultations
- ◆ Oxygen therapy
- ◆ Pancreatic diseases
- ◆ Pulmonary diseases
- ◆ Renal disease
- ◆ Respiratory diseases
- ◆ Second opinion examinations
- ◆ Ultrasonography
- ◆ Tracheal and urethral stenting

#### Cardiology

- ◆ Echocardiography
- ◆ Electrocardiogram (ECG)
- ◆ Chest radiographs
- ◆ Blood pressure
- ◆ Pericardiocentesis
- ◆ Cardiology breed certification
- ◆ Holter monitoring
- ◆ Event monitoring
- ◆ Non-surgical PDA repair
- ◆ Balloon valvuloplasty
- ◆ Pacemaker implantation
- ◆ Invasive blood pressure measurements
- ◆ Angiography

- ◆ Implantable ECG Loop Recording

#### Radiology

- ◆ Outpatient and inpatient ultrasound
- ◆ Radiology Rounds
- ◆ Digital radiography
- ◆ Helical CT scanning
  - 64 slice
- ◆ Fluoroscopic urinary, GI, and tracheal studies
- ◆ Nuclear imaging
  - GFR scans
  - Bone scans
  - Thyroid scans
  - Splenic scintigraphy
- ◆ Radiographic interpretation
- ◆ CT and MRI interpretation

### Dermatology for Animals, PC

#### Dermatology

- ◆ Allergy testing (skin testing) and immunotherapy
- ◆ CO<sub>2</sub> laser for ablation of skin tumors
- ◆ Testing for food allergies and hypoallergenic diets
- ◆ Ear disease diagnosis and treatment
- ◆ Bacterial and fungal skin disease diagnosis and treatment
- ◆ Cytological smears and microbic examinations
- ◆ Ectoparasite identification and treatment
- ◆ Immune-mediated and hormonal skin disease diagnosis and treatment
- ◆ Treatments of nail and nail bed disorders
- ◆ Skin biopsy sampling and histopathology interpretation
- ◆ Liquid nitrogen cryotherapy

...continued on page 5

...continued from page 4

## Southwest Veterinary Surgical Service, PC Surgery

- ◆ Abdominal surgery
- ◆ Airway surgery
- ◆ Angular limb deformity surgery
- ◆ Arthroscopy
- ◆ CT Scans
- ◆ External skeletal fixation
- ◆ Fracture repair
- ◆ Laparoscopy and Thoracoscopy
- ◆ Neurologic surgery
- ◆ Oncologic surgery
- ◆ Oral surgery, such as maxillofacial surgery and oral fractures
- ◆ Orthopedic surgery
- ◆ Otolgic surgery
- ◆ Perineal surgery
- ◆ Reconstructive surgery
- ◆ Ring fixators
- ◆ Soft Tissue surgery
- ◆ Thoracic surgery
- ◆ Tibial Plateau Leveling Osteotomy (TPLO)
- ◆ Triple Pelvic Osteotomy (TPO)
- ◆ Total Hip Replacement (THR) both cemented and cementless procedures available
- ◆ Tracheal Stenting
- ◆ Tibial Tuberosity Advancement (TTA)

## Anesthesia and Pain Management

- ◆ Anesthetic management of high risk and critical care patients
- ◆ Extensive anesthesia monitoring
  - Blood pressure, both direct and indirect
  - Pulse oximetry
  - Electrocardiogram
  - Capnography
  - Body temperature
  - Ventilator therapy
- ◆ Pain patches
- ◆ Chronic pain management consultations

## BluePearl Veterinary Partners, PLC Emergency and Critical Care

- ◆ In house diagnostic tests
  - STAT laboratory blood tests
    - \* Complete Blood Count (CBC)
    - \* Serum biochemical analysis
    - \* Blood gas analysis
    - \* Urinalysis
    - \* Blood lactate measurement
    - \* Coagulation testing
    - \* Ethylene glycol (Antifreeze) testing
    - \* Parvovirus testing
  - Digital x-rays
    - \* Radiologist interpretation
  - Scanning ultrasound
  - Gastrointestinal endoscopy
- ◆ Specialized Therapies
  - Intravascular volume expansion/shock therapy
  - Blood component therapy
  - Rattlesnake antivenom therapy
  - Oxygen
  - Short and long term ventilator therapy
  - Anesthetic ventilator
  - Pain medication delivery via constant rate infusion
  - Nutritional support
  - Feeding tube placement
  - Peritoneal dialysis
  - Continuous suction for chest and other drains
  - Central and peripheral IV catheter placement
  - CPR with advanced life support
  - Electrical defibrillation & emergency cardioversion
  - Anesthesia for high-risk critical patients

- ◆ Soft tissue emergency surgical procedures performed by our emergency veterinarians (included, but not limited to):
  - Wound repair
  - Emergency tracheostomy
  - Chest tube placement
  - Abdominal surgeries
  - Gastric Dilatation Volvulus (GDV) or bloat surgery
  - GI foreign body removal
  - C-section
  - Splenectomy
  - Bladder stone removal
- ◆ Intensive monitoring
  - Electrocardiogram (EKG)
  - Blood pressure (direct arterial and indirect)
  - Urinary catheter placement and measurement of urine output
  - Pulse oximetry (Oxygen saturation)
  - Capnography (End Tidal CO<sub>2</sub>)
  - Central venous pressure
  - Arterial and venous blood gas measurement

## Eye Care for Animals, dba Ophthalmology

- ◆ Biomicroscopy
- ◆ Indirect ophthalmoscopy
- ◆ Electroretinography
- ◆ Ultrasonography
- ◆ Applanation tonometry
- ◆ Fluorescein angiography
- ◆ Glaucoma treatment
- ◆ Cataract surgery
- ◆ Corneal reconstructive surgery
- ◆ Treatment of eyelid abnormalities

# AVS Specialty Practices

## Southwest Veterinary Surgical Service, PC

- ◆ Bradford C. Dixon, DVM, MS  
*Diplomate, American College of Veterinary Surgeons*
- ◆ Jeffrey A. Steurer, DVM, MS  
*Diplomate, American College of Veterinary Surgeons*
- ◆ Kathleen M. Rowe-Guthrie DVM, MS  
*Diplomate, American College of Veterinary Surgeons*
- ◆ Megan Schaible, DVM  
*Diplomate, American College of Veterinary Surgeons*

## Arizona Veterinary Dental Specialists, PLLC

- ◆ Chris Visser, DVM  
*Diplomate, American Veterinary Dental College*  
*Diplomate, European Veterinary Dental College*
- ◆ Curt Coffman, DVM  
*Diplomate, American Veterinary Dental College*
- ◆ Michael Balke, DVM  
*(Practice Limited to Dentistry and Oral Surgery)*

## Arizona Veterinary Oncology, PLLC

- ◆ Eric Boshoven, DVM  
*Diplomate, American College of Veterinary Radiology (Radiation Oncology)*
- ◆ Lynda Beaver, DVM  
*Diplomate, American College of Internal Medicine (Medical Oncology)*
- ◆ Rachel Venable, DVM, MS  
*Diplomate, American College of Internal Medicine (Medical Oncology)*

## BluePearl Veterinary Partners, PLC

- ◆ Brandi Mattison, DVM  
*Diplomate, American College of Veterinary Emergency and Critical Care*
- ◆ Raegan Wells, DVM, MS  
*Diplomate, American College of Veterinary Emergency and Critical Care*
- ◆ Katherine Smith, DVM  
*Diplomate, American College of Veterinary Emergency and Critical Care*

## Dermatology for Animals, PC

- ◆ Thomas P. Lewis II, DVM  
*Diplomate, American College of Veterinary Dermatology*
- ◆ Anthea E. Schick, DVM  
*Diplomate, American College of Veterinary Dermatology*
- ◆ Rebecca Mount, DVM  
*Diplomate, American College of Veterinary Dermatology*
- ◆ Carine Laporte, VMD  
*(Practice Limited to Dermatology)*
- ◆ Samantha Lockwood, DVM  
*(Practice Limited to Dermatology)*
- ◆ Stephanie Schwartz, DVM  
*(Practice Limited to Dermatology)*

## Eye Care for Animals, dba

- ◆ Lisa M. Felchle, DVM  
*Diplomate, American College of Veterinary Ophthalmology*
- ◆ Paul M. Barrett, DVM  
*Diplomate, American College of Veterinary Ophthalmology*

## Desert Veterinary Medical Specialists

- ◆ Victoria Heffelman, DVM  
*Diplomate, American College of Veterinary Radiology*
- ◆ Whit M. Church, DVM  
*Diplomate, American College of Veterinary Internal Medicine (Cardiology)*
- ◆ Melissa Riensche, DVM  
*Diplomate, American College of Veterinary Internal Medicine*

