

BASIC INFORMATION

Description

Urethritis is inflammation of the urethra. The urethra is the tube that carries urine from the bladder to the outside. Because the bladder sphincter muscle (which keeps the bladder closed) lies at the beginning of the urethra, urethritis may cause urinary incontinence. Conversely, urethral disease may also obstruct urine flow. The urethra of females is relatively short and wide, so it is not prone to urethral diseases. The urethra of male cats is moderately long but also very narrow and is commonly affected. The urethra of male dogs is very long and travels through the prostate.

Causes

Urethritis may be caused by anything that irritates the urethra. Bladder stones may become lodged in the urethra or may cause damage as they pass. Infection in the bladder may also cause infection in the urethra. Bladder cancer may extend into the urethra. Prostate disease in male dogs may cause urethritis. In male cats, urethritis may be caused by obstruction (complete or partial) resulting from mucus debris, stones, blood clots, or muscle spasms.

Clinical Signs

Pets with urethritis typically have pain during urination. They make frequent attempts to urinate, strain while urinating, and have urgency to urinate. Blood in the urine may be more pronounced at the beginning of urination. The urethra may feel thickened or irregular when your veterinarian does a rectal examination (dogs).

Diagnostic Tests

Initially, blood and urine tests and abdominal x-rays are often recommended to investigate the clinical signs. Urinalysis and urine culture may show evidence of urinary infection. Abdominal x-rays that include the entire urethra may reveal stones in the bladder or urethra. An abdominal ultrasound may show stones or masses (tumors, polyps) in the bladder.

A contrast urethrogram may be recommended. This involves taking a series of plain x-rays or video x-rays (fluoroscopy) after injection of contrast material (a dye that shows up white on x-rays) into the urethra via a urinary catheter. This test evaluates whether any areas of the urethra are blocked by stones, tumors, or scar tissue.

Cystoscopy involves passing a fiberoptic viewing scope into the urethra with the animal under anesthesia. A rigid cystoscope can be used in female dogs and cats (those weighing more than 6 pounds), because the urethra is relatively straight in females.

A flexible cystoscope is necessary for evaluating the urethra of male dogs, because the urethra is long and curved. A specialized, tiny, flexible (to semirigid) cystoscope can be used for male cats. Cystoscopy allows the entire length of urethra to be examined, but the equipment is not widely available.

A urethral biopsy may be necessary to document cancer and to distinguish it from severe, benign inflammation. Biopsy may be performed via cystoscopy. If abnormal urethral tissue extends to the external tip of the penis, biopsies can be obtained without cystoscopy.

TREATMENT AND FOLLOW-UP

Treatment Options

Treatment is primarily directed at correction of the underlying disease. If a stone is obstructing the urethra, it may be flushed back into the bladder with the animal under anesthesia and retrieved surgically by bladder surgery (cystotomy). If the stone does not budge in male dogs, an incision can be made into the urethra to remove the stone. In male cats, it may be necessary to surgically remove the blocked part of the urethra in a procedure called a *perineal urethrostomy*.

If no physical obstruction is present, spasms of the urethra may be treated with muscle relaxants or antispasmodic drugs. A commonly used drug is phenoxybenzamine. In addition to relaxing urethral spasms, phenoxybenzamine may decrease blood pressure. A sign of excessively low blood pressure is profound sluggishness. Prazosin is a related drug that can also be tried. Oral diazepam (*Valium*) can relax urethral muscles. Side effects include sedation. Occasionally, severe liver damage can occur in cats from diazepam, so the drug is rarely used in cats. Anti-inflammatory drugs may be used in some cases.

Follow-up Care

The ability to urinate is closely monitored in animals with urethritis. If repeated straining occurs and no urine is produced, notify your veterinarian immediately. Frequency of follow-up examinations depends on the underlying cause as well as the severity and recurrence of signs.

Prognosis

Urethral spasm that contributes to urethral obstruction in cats can be a recurrent problem, and it leads to euthanasia in about 25% of affected cats. Like bladder tumors, urethral tumors do not usually respond well to treatment. Urethritis from a bladder infection often resolves completely when the infection is controlled.