



Canine Transitional Cell Carcinoma

The genitourinary tract includes the kidneys, ureters (“tubes” that connect the kidneys to the bladder), the bladder, and the urethra (the outflow tract from the urethra to outside the body). It also includes the structures of the prostate, vagina, and vulva. The bladder is most commonly affected by TCC.

TCCs are relatively rare in both dogs and cats, though they are the most common bladder tumors. While smoking is one cause of TCC in humans, and second-hand smoke may therefore be a potential factor for our pets, the causes are mostly unknown. One study showed an association between the older generation flea dips and TCC. Chronic treatment with the chemotherapy drug cyclophosphamide (cytoxan) is another. Certain breeds are also at higher risk: Scottish Terriers, Shetland Sheepdogs, Beagles, West Highland White Terriers, and Wire Fox Terriers. Bladder TCCs also occur more often in female dogs.

Dogs with bladder tumors often act as though they have a urinary tract infection. They may strain to urinate, eliminate bloody urine, and/or urinate frequently. Some may become incontinent. Patients with bladder tumors often have secondary infections, so when treated with antibiotics, the clinical signs may abate or improve; however, they will return. Dogs with recurrent infections should be evaluated further.

Common diagnostics used to stage and diagnose patients with bladder tumors include urinalysis and culture, cytology and/or biopsy, abdominal ultrasound, cystoscopy, contrast-enhanced radiography, 3-view chest radiographs (x-rays), blood work, and a bladder tumor antigen test. The most definite way to diagnose a bladder tumor is to obtain a tissue sample to evaluate by biopsy. However, the other tests are often needed to provide additional information about tumor size, location, and spread and to determine overall health and detect the presence of other diseases.

While surgery is usually recommended to treat most tumors, often these tumors are not easy to remove, and therefore other treatment options are tried. Even with surgery, additional treatment is always recommended. Even healthy looking bladder tends to be diseased, and the tumor eventually regrows in a different location. If surgery is possible, reducing tumor burden can improve outcome; however, many patients simply undergo chemotherapy instead.

While many traditional chemotherapy regimens have proven to be ineffective, the combination of mitoxantrone and the NSAID piroxicam has shown to be effective at improving quality of life, with median survival times reported to be approximately 1 year. New treatment options are always being evaluated, and for this kind of cancer, it is highly recommended that you seek advice from a board-certified oncologist. Optimizing treatment for a particular patient can be complex. Relatively minor adjustments in a patient's treatment plan can result in significant improvements in life quality and overall outcome. We've had patients survive 3 or more years past diagnosis with great life quality, so while this is a tough, aggressive disease, it is not a hopeless situation.

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