



SAGE

URINARY BLADDER TRANSITIONAL CELL CARCINOMA

What is a transitional cell carcinoma?

Transitional cell carcinomas are malignant tumors of the lining of the bladder wall. Some breeds (Scottish Terrier, Shetland Sheepdog, Beagle) are predisposed to these tumors.

How do you diagnose this tumor?

Your oncologist will discuss diagnostic recommendations specific for your pet, which may include an abdominal ultrasound, a urine test, catheterization of the urinary tract for sampling, or biopsy of the mass with cystoscopy.

What is the behavior of these tumors?

These tumors invade the bladder wall and may obstruct the urine flow into or out of the bladder. Approximately 50% of them metastasize, however, in most patients, the primary cause for concern are signs related to the tumor in the urinary tract (urinary tract infections, blood in the urine, frequent urination, straining to urinate, or obstruction of the urinary tract).

What is the treatment for transitional cell carcinoma?

Depending on the location of the tumor in the bladder, sometimes surgery may be recommended. However, with surgery alone, we cannot remove all of the tumor and follow-up treatment with [chemotherapy](#) is recommended. Chemotherapy is also recommended as the primary treatment if the mass cannot be removed with surgery. Please see the [Chemotherapy](#) handout for more information.

The chemotherapy options may include a combination of mitoxantrone (given in the vein every 3 weeks for 4-6 treatments) along with a non-steroidal anti-inflammatory called piroxicam (a capsule given at home daily). About 75% of dogs have improvement of their symptoms with this treatment. Approximately 80% of patients have mild to no side effects, 10-20% moderate side effects that are managed with medications or a recheck with fluids. Rarely, 5% or fewer are hospitalized with life-threatening complications. Note that our primary goal is to provide a good quality of life throughout the chemotherapy. Side effects of the piroxicam can include GI upset or toxicity to the kidneys.

Another option is to use piroxicam alone by mouth, which may help slow growth of the tumor in patients as well as decrease pain and inflammation. We would recommend blood work periodically to check kidney function.

Your oncologist may also discuss other chemotherapy alternatives with you depending on your pet's specific tumor characteristics or symptoms.



SAGE

CHEMOTHERAPY
