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TRANSITIONAL CELL CARCINOMA

Transitional cell carcinoma (also known as TCC or urothelial carcinoma) is the most common tumor found in the urinary bladder. Generally, TCC occurs in older dogs, and it tends to occur in females more frequently than in males. It can occur more commonly in certain breeds of dogs such as Scotties, Westies, Beagles, and other terriers. This cancer can cause dogs to have bloody urine, urine dribbling, straining to urinate, and frequent urination. Secondary urinary tract infections are common with TCC. This cancer may be diagnosed by seeing abnormal cells in the urine (cytology), through a tissue biopsy (histopathology), or potentially via molecular testing on a urine sample (called BRAF).

These tumors have the potential to metastasize, usually to nearby lymph nodes and the lungs, rarely to other abdominal organs. Chest x-rays and abdominal ultrasound are recommended in order to determine if there has been spread of the cancer (metastasis). A urine culture is often recommended to evaluate for concurrent urinary tract infections.

Treatment options for this cancer are very limited due to the often late stage of disease at the time of diagnosis. The extensive involvement of the trigone region of the bladder and the close proximity to other nearby structures (prostate, urethra, ureters) makes this tumor virtually impossible to remove with surgery in most patients.

Since these tumors are aggressive, usually inoperable, and have the potential to spread, treatment typically centers around palliation with anti-inflammatory drugs (NSAIDS) and/or chemotherapy, and/or radiation therapy. These are often combined into one treatment plan. The most commonly used chemotherapy agents used with transitional cell carcinoma include carboplatin, mitoxantrone, and vinblastine. Specific molecular targeted chemotherapy agents may also be considered. Other various treatment options and palliative procedures may be available.

It can be difficult to determine how well the treatments are working for TCC. We use clinical signs (improvement in incontinence, decrease of the blood in urine, decreased frequency or straining of urination) to monitor response, and we also can recheck the tumors with an ultrasound to see if there is improvement.

The prognosis for patients with this cancer is incredibly variable and can be influenced by the severity of clinical signs (symptoms), presence of metastasis, response to treatment, and other patient factors. Unfortunately, this cancer is rarely curative and treatments are focused on improving quality of life for pets as long as possible.

Please remember that each patient is an individual and can have variable presentations of their cancer and response to treatment. Specific details and recommendations for your pet can be discussed in detail during a consultation with the oncologists at the Animal Cancer Center of Texas.