



CANINE PROSTATE TUMORS

Canine prostate tumors are most typically adenocarcinomas, malignant tumors arising from the gland cells of the prostate. These prostatic carcinomas can occur in both intact and castrated male dogs, and it is controversial what role hormonal influences might play in the development of prostatic adenocarcinomas. Transitional cell carcinomas, malignant tumors arising from the lining cells of the urinary system, are a different tumor type which can also involve the prostate and which must be distinguished from prostatic adenocarcinomas.

What are the symptoms?

Clinical signs of prostatic tumors are often similar to signs of other noncancerous diseases of the prostate. These signs can include straining to urinate, frequent urination, and/or blood in the urine. Some dogs also have difficulty defecating due to compression of the rectum by the enlarged prostate or enlarged lymph nodes. Sometimes, patients are painful due to invasion of prostatic carcinoma into the lumbar spine

How are prostate tumors diagnosed?

Diagnosis of prostatic carcinoma ultimately requires a tissue sample from the abnormal prostate. Tissue samples could include cytologic evaluation of cells (from a voided urine sample, fine needle aspirate of the mass, or urinary catheterization for sampling of the mass) and/or histopathologic evaluation of a larger biopsy specimen (obtained by ultrasound-guided needle biopsy, cystoscopy, or exploratory abdominal surgery).

Other tests are also generally performed as part of the workup when a prostatic carcinoma is diagnosed or suspected. These include general bloodwork, abdominal ultrasound (to evaluate the prostate itself as well as assess for metastasis of the tumor elsewhere in the abdomen), and chest X-rays (to look for any sign of spread of the cancer to the lungs). X-rays of other bones might also be performed if there is any suspicion of bony metastasis.

What are the treatment options for prostatic adenocarcinoma?

Unfortunately, prostatic adenocarcinomas occur in a difficult location, tend to have aggressive behavior with a high rate of metastasis to other organs, and generally seem to be poorly responsive to many different types of therapy. Surgical removal of the prostate may be considered for early, small, very localized disease; however, it is performed only very rarely, as it has been associated with a high rate of significant complications such as urinary incontinence. Radiation therapy has also been used at times to try to reduce the disease locally, but its efficacy has been limited. Chemotherapy and/or non-steroidal anti-inflammatory drugs can also be tried, although evidence for their effectiveness against prostatic adenocarcinoma is limited. Placement of devices such as a stent



(to try to maintain a patent urethra through the prostate) or a surgically-placed cystostomy tube (to remove urine from the bladder before it has to pass through the urethra and prostate) may provide temporary relief in some cases. Pain medications and bisphosphonates (drugs which reduce bone breakdown) may provide some relief for patients with painful bony metastasis.

What is the prognosis?

Unfortunately, the prognosis for prostatic adenocarcinoma is poor, and many patients are diagnosed when their disease is already at an advanced stage. Most patients are likely to live only a few months with prostatic adenocarcinoma, even with aggressive treatment and supportive care.