

Southern California Veterinary Specialty Hospital

1371 Reynolds Ave.

Irvine, CA 92614

(949) 833-9020

MAMMARY GLAND TUMORS IN DOGS

Tumors of the mammary gland are the most common tumors of female dogs. Mammary tumors are reported to occur in approximately 2 of 1,000 female dogs. Approximately half of canine mammary tumors are malignant, meaning that they have the potential to spread to other parts of the body. The remaining mammary tumors are benign.

Staging

When a malignant mammary tumor is diagnosed in a dog, it is appropriate to perform a series of tests to “stage” the cancer, which simply means to determine whether the tumor has metastasized (spread) and the extent of the spread. These tests include a physical examination, a complete blood and urine analysis, radiographs (x-rays) of the thorax and possibly ultrasound of the abdomen. The most common sites of metastasis are the lymph nodes and lungs. These tests allow detection of tumor nodules in the lungs, lymph nodes, liver and other organs to the best of our abilities.

Treatment - Surgery

Surgical removal of the tumor(s) is the treatment of choice for benign mammary tumors and for malignant mammary tumors that have not spread beyond the mammary tissue and adjacent lymph nodes. Most benign mammary tumors are curable by surgery. Approximately half of malignant mammary tumors are also cured by surgery. This is possible because some malignant mammary tumors in the dog do not spread very quickly and can be removed before they spread. Radical mastectomy has not been shown to be any more effective than more limited surgery in most dogs. Tumors that are larger than 3 centimeters and tumors that are of higher grade (as classified by the pathologist) are more likely to recur (70% recurrence at 1 year) than smaller tumors and tumors of a lower grade (30% recurrence at 1 year). If the dog is not spayed already, spaying at the time of mass removal has recently been shown to increase the survival time for some dogs with malignant tumors.

After surgical removal of a malignant mammary tumor, your dog should be examined by your veterinarian periodically to determine whether the tumor has recurred either in the mammary area or at another location in the body. These rechecks include a complete physical examination and periodic radiographs.

Treatment – Chemotherapy

Chemotherapy is the use of medications to interrupt the growth of cancer cells. These medications typically do NOT cause significant side effects. You may be familiar with the side effects of chemotherapy in people. Fortunately, animals tend to experience few in any of the severe side effects seen in people. However, side effects may occur and symptoms can range from a mild, temporary decrease in appetite to anorexia, loose stools, vomiting and fever. Again, most pets have no symptoms. *Our philosophy is that cancer patients should feel better, not worse, from their chemotherapy!*

Because surgery alone achieves successful control in many cases, chemotherapy is usually reserved for tumors that cannot be removed surgically, tumors that have metastasized, and tumors that have a high probability of spreading. An effective chemotherapy protocol for canine mammary cancer has not been well-defined but we have seen responses with drugs such as doxorubicin (Adriamycin), carboplatin and cisplatin. Piroxicam therapy, an anti-inflammatory drug, has also been shown to improve the quality of life in some dogs with advanced mammary carcinoma. This drug may be used in conjunction with chemotherapy for added benefit.

Prevention

It is important to note that mammary cancer can be prevented in the dog by early ovariohysterectomy (spaying). The risk of developing mammary tumors in dogs has been reported to be 0.05% for dogs spayed before the first heat cycle, 8% for dogs spayed after the first but before the second heat cycle, and 26% for dogs spayed after the second heat cycle. Therefore, dogs that are not going to be used for breeding purposes should undergo early ovariohysterectomy.