

Southern California Veterinary Specialty Hospital

1371 Reynolds Ave.

Irvine, CA 92614

(949) 833-9020

SOFT TISSUE SARCOMAS

Soft tissue sarcomas include several different tumor types. They originate in connective tissues including muscle, adipose (fat), neurovascular, fascial and fibrous tissue. Some examples are: spindle cell tumors, fibrosarcomas, nerve sheath tumors, schwannomas, myxosarcomas and liposarcomas. Most of these tumors present as a mass either on or under the skin and will grow over weeks to months. Sarcomas are locally invasive tumors with only a 10%-25% metastatic rate. When the tumor is classified as “high grade” based on microscopic changes, the chance of metastasis may be higher. These tumors can occur in any breed and the cause is unknown.

Staging

When a patient is diagnosed with a sarcoma, tests are done to determine the extent of the original (or “primary”) tumor and to check for potential spread. The primary tumor is usually evaluated by measurements taken during a physical examination. In certain cases, an ultrasound, CT scan or MRI may be used to help determine the total size of the tumor. If a sarcoma spreads to other organs, lymph nodes and lungs are the likely sites for metastasis. The lymph nodes are evaluated by palpation during the physical examination, and a cell sample may be collected using a needle for aspiration. Occasionally part or all of a lymph node may be removed for examination. The lungs are evaluated using x-rays. A blood panel and urinalysis are also collected to ensure that your pet does not have additional health problems and is otherwise healthy to undergo treatment.

Treating - Surgery

The ideal treatment for sarcomas is aggressive surgery. Tumor invasion occurs between tissue layers, and fingerlike projections often extend like a plant’s root system. Some tumors have a “pseudocapsule” that may appear to contain the cells, but cancer cells can penetrate beyond this visual barrier. Therefore, at least 2-3cm of normal-appearing tissue should be removed around the edge of the tumor to offer the best chance of removing all of the cancer. When conservative surgery with a smaller incision is done, the patient’s risk for recurrence and distant spread increases. If aggressive surgery is performed early, the majority of patients do not have recurrence for at least one year, often much longer.

Treating-Radiation

If surgery alone cannot control the tumor, radiation therapy may be beneficial. Radiation may be done either before or after surgery. Radiation therapy involves multiple treatments and anesthesia, but the majority of cats and dogs handle this very well. Temporary local side effects may occur, but the long-term control can be excellent with up to two or more years of disease-

free periods for most patients. If a definitive course of radiation cannot be done, palliative radiation may also offer benefit in slowing tumor progression. Palliative radiation generally involves only 5 treatments and there are fewer side effects associated with it. However, the long-term control is significantly shorter when compared with definitive radiation.

Treating - Chemotherapy

Chemotherapy is generally only used for sarcomas if surgery and radiation therapy are ineffective or cannot be done. Chemotherapy may also be recommended if the tumor is classified as high grade. Chemotherapy may be given orally, intravenously or directly into a tumor. Often a combination of drugs is used to obtain the best tumor control. A protocol is devised for each individual patient based on several factors, including the tumor type, grade, location, size, etc. Chemotherapy may slow the cancer in about 40% of patients.

If soft tissue sarcomas are caught early and aggressive local control is achieved, the prognosis can be quite good.