

WHAT IS A SOFT TISSUE SARCOMA?

Soft tissue sarcomas are a group of malignant cancers that arise from the connective tissues, such as fat (liposarcoma), muscle (rhabdomyosarcoma, leiomyosarcoma), cartilage (chondrosarcoma), fibrous connective tissue (fibrosarcoma), nerves (schwannoma, malignant peripheral nerve sheath tumor, neurofibrosarcoma) and the “pericytes” (support cells) of small blood vessels in the subcutis (hemangiopericytoma). These tumors are often considered collectively because of their similarity in clinical behavior.

Soft tissue sarcomas may arise from any anatomic site. They tend to appear as discrete and well encapsulated, but are actually very invasive into surrounding tissues. As such, local regrowth of the tumor is common after conservative surgical removal. Soft tissue sarcomas are graded as low, intermediate, or high grade. Most soft tissue sarcomas are low to intermediate grade, and have a relatively low chance of spreading to other places (metastatic rate of less than 25%). High grade sarcomas have a higher potential for metastasis (25-40%)

HOW ARE SOFT TISSUE SARCOMAS DIAGNOSED?

As a general rule, these tumors do not readily shed their cells; however, a fine needle aspirate is an easy, non-invasive test that can often confirm the presence of a sarcoma. A biopsy may be necessary if fine needle aspirates are non-diagnostic. Further, biopsies can also be used to classify the specific type or grade of soft tissue sarcoma.

Once a diagnosis of a soft tissue sarcoma is made, staging is recommended to rule out spread of disease and evaluate your pet’s overall health. Staging for sarcomas typically involves routine bloodwork, chest radiographs, and evaluation of regional lymph nodes. An abdominal ultrasound may also be recommended.

WHAT IS THE TREATMENT?

Treatment of soft tissue sarcomas depends on a number of factors including location, feasibility of surgical removal, if the tumor has spread, grade of the tumor, and extent of removal. Some of these tumors can be managed successfully with surgery alone and some may require a combination of surgery, radiation therapy, and chemotherapy. Most commonly, these tumors can have a good outcome with surgery and radiation therapy combined. Side effects of radiation are minimal and limited to the site where radiation therapy is performed.

WHAT IS THE PROGNOSIS?

Soft tissue sarcomas that are low to intermediate grade that can be removed completely with aggressive surgery and wide margins have an excellent long-term prognosis. Control rates for low grade soft tissue sarcomas that are excised with less than adequate margins followed by radiation therapy are also very good. For high-grade sarcomas and those that have spread, the long-term prognosis is more guarded.