Canine Soft Tissue Sarcomas

Soft tissue sarcomas are a diverse group of tumors that include fibrosarcoma, hemangiopericytoma, peripheral nerve sheath tumors, myxosarcomas, malignant fibrous histiocytomas, synovial cell sarcomas, rhabdomyosarcomas, leiomyosarcomas, liposarcomas, undifferentiated sarcomas, and spindle cell sarcomas, among others. These tumors arise from connective tissues of the body.

These tend to be solitary, painless masses that can arise in various locations. Signs associated with these masses often have to do with invasion and compromise of the organs in which they invade. In the skin, they can grow sometimes to very large sizes without bothering a pet.

To diagnose a soft tissue sarcoma, a fine needle aspirate and/or incisional biopsy is performed. Soft tissue sarcomas are sometimes harder to diagnose on fine needle aspiration and cytology because cells often do not exfoliate well. While fine needle aspirate is least invasive, incisional biopsy is often required. Staging diagnostics performed often depend on tumor location and type. Usually, however, 3-view chest x-rays are recommended, as is abdominal ultrasound.

Soft tissue sarcomas tend to be more invasive than other tumors and grow projections that can extend and invade. Surgery is usually required to remove soft tissue sarcomas. In addition to removing the primary mass, a wide margin of tissue surrounding the mass is also taken to hopefully guarantee that all disease is removed so that it doesn't grow back. We often recommend a CT scan to evaluate the margins of larger tumors or tumors in tricky locations. This is to help the surgeon better plan how to approach and remove a particular tumor. While a CT scan adds to the cost, it is cheaper than radiation or a second surgery if the surgical margins are incomplete.

Sometimes, however, even the best efforts still leave tumor at the surgical site. In this case, either a second surgery or radiation to the incision line is recommended. This is to prevent re-growth at the site. A recent study looked at using low-dose chemotherapy to delay or slow re-growth in incompletely removed soft tissue sarcomas, but the optimal recommendation is still surgery or radiation in most cases.

While surgery and/or radiation is needed to treat the primary tumor, in some cases,

chemotherapy is needed as well. When the tumor is removed, it is biopsied and the pathologist provides a report. The report provides details that suggest whether a tumor is high or low grade. Tumor growth, size, type, and spread to other sites are other factors that are considered when determining whether additional treatment is needed. This is best discussed and evaluated with a board-certified veterinary oncologist.

While a diagnosis can be very stressful, early detection, diagnosis, and treatment can be very rewarding for many soft tissue sarcomas. In some cases, a chance to surgically remove is a chance for potential cure. Therefore, it is best to have lumps and bumps evaluated, diagnosed, and treated as early as possible.