

Partner Case Studies

Soft Tissue Sarcoma



“Bear,” patient of Partner Oncology (Frederick) with Dr. Michelle Silver, DVM, DACVIM – Oncology. Referred to Partner by West Frederick Veterinary Hospital.

Presenting Complaint and History:

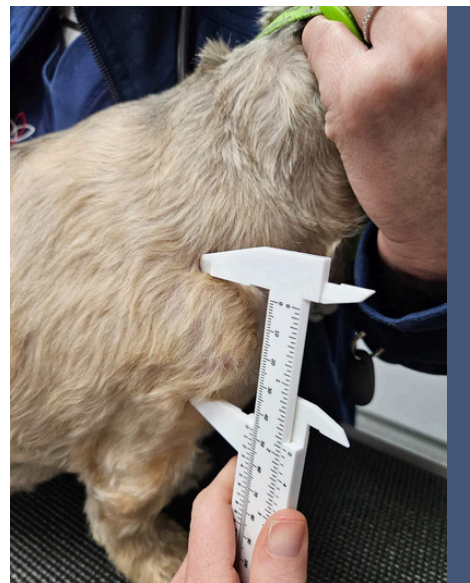
Bear is a 12.5-year-old MN Shih Tzu Mix who was presented to Partner Veterinary Emergency and Specialty Center’s Frederick oncology department for further discussion of suspected recurrent soft tissue sarcoma.

A mass was first noticed along the right shoulder in late summer/early fall 2022. The mass grew quickly and was removed in January 2023 and was diagnosed as a grade 1 soft tissue sarcoma that was incompletely excised.

Unfortunately, the tumor started to regrow in September 2023 and grew quickly so he was referred for further discussion and treatment options.

Exam Findings:

The main finding on Bear’s physical examination was a large, firm, semi-fixed SQ mass along the right shoulder measuring 4.2 x 3.8 x 2.6cm.



Diagnostics and Treatment:

Work-up consisted of routine bloodwork (CBC, chemistry panel), urinalysis to assess for any additional concerns, chest x-rays to look for evidence of metastasis, and aspiration of the right shoulder mass to try and confirm our suspicion of recurrent disease.

Bear’s bloodwork and urine results were unremarkable. His chest x-rays did not reveal any evidence of metastasis (spread of disease) and the aspiration of the mass confirmed recurrence of the previously removed soft tissue sarcoma.

Treatment consisted of mass removal and scar revision surgery. The mass was removed and diagnosed as a grade 1 soft tissue sarcoma with a mitotic count of 4/10hpf and complete margins were obtained.

Given that the tumor was a grade 1 and was completely excised, no additional therapy was needed and monitoring was recommended.

Discussion:

Soft tissue sarcomas are one of the most commonly diagnosed skin tumors in dogs. They have a variable biologic behavior, and prognosis is most often based on the grade of the tumor. Soft tissue sarcomas are graded 1 through 3. Grade 1 and 2 soft tissue sarcomas are mostly locally aggressive and have a low risk of metastasis (10-20%). Grade 3 soft tissue sarcomas are aggressive locally (grow quickly) and have a 40% risk of spreading to other areas of the body. The most common site for metastasis is the lungs and less commonly the regional lymph nodes. To determine the extent of disease, staging tests are recommended. This includes chest radiographs to look for spread to the lungs, regional lymph node aspiration (if possible), bloodwork (complete blood count, chemistry panel), a urinalysis and +/- abdominal ultrasound.

Surgical excision is the treatment of choice when possible. Depending on the location, complete excision may be difficult due to the microscopic tentacles these tumors create. If a tumor has been completely excised and is low grade, then monitoring is all that is usually needed.

For tumors that are incompletely excised, the main concern is for recurrence of the tumor along the scar. Most tumors that have been incompletely excised will usually recur within the first 12-18 months of surgery. Additional local therapy can include scar revision surgery (when possible) and/or radiation therapy. Metronomic chemotherapy has also been evaluated for these patients and has been found to be beneficial, however not as good as the combination of surgery and radiation.

If adequate margins are not obtained with a scar revision surgery or another surgery is not possible, then radiation therapy may be warranted. The goal of radiation is to try and clean up any residual disease that may remain to slow the risk for recurrence.

Metronomic chemotherapy. This is a treatment that has been used for dogs with grade 1 or 2 soft tissue sarcomas that have been incomplete or narrowly excised. This protocol includes a low dose of a chemotherapy agent in combination with an anti-inflammatory agent (piroxicam or rimadyl). The goal of this therapy is to slow the tumor from making new blood vessels, which in turn should slow the progression of the tumor. Side effects of the chemotherapy agent can include stomach upset (vomiting, diarrhea, lethargy, and decrease in appetite) and a decrease in their white blood cell count. Fortunately, significant side effects are uncommon and if they do occur, most patients are treated with oral medications at home.

Outcome:

Bear did well after surgery and had his most recent visit on April 7, 2024, and he does not have any new masses and there is not any evidence of recurrence. We will continue to monitor Bear with recheck exams once every 3 months.

Take Home Points:

1. Soft tissue sarcomas are a common diagnosis and more often seen in older dogs.
2. Soft tissue sarcomas are graded 1 though 3 and the grade is predictive of biologic behavior.
3. Staging tests are performed prior to treatment to look for any evidence of metastasis and any other possible medical issues that would dictate the best treatment options.
4. Surgical excision is the treatment of choice for soft tissue sarcomas.

If you have any questions about this case, please contact Dr. Silver at msilver@partnervesc.com.

To refer a case, please visit www.parnervesc.com/refer