Neurofibrosarcoma in Dogs

Dear OncoLink "Ask the Experts,"
I am a veterinarian. I have a patient with neurofibrosarcoma. She is a 2-year-old female dog. This diagnosis is new for me, please send me information about this disease.

Lili Duda, VMD, Editor of the OncoLink Veterinary Oncology Section, responds:

Neurofibrosarcomas are one type of soft tissue sarcoma, which are common connective tissue tumors in dogs. Other similar tumors that share the same biological behavior are fibrosarcomas, nerve sheath tumors, hemangiopericytomas, Schwannomas, etc.

These tumors tend to be low-grade histologically so they are locally very invasive but unlikely to metastasize. High-grade versions of these tumors are uncommon, but do occur, so careful attention should be paid to the histological diagnosis, particularly in a young dog. High degree of pleomorphism, mitotic index, necrosis may indicate a high-grade tumor.

The treatment of choice is a wide surgical excision. This means at least 3-cm lateral margins and at least one fascial plane deep. These tumors tend to grow along fascial planes and neurovascular bundles, so there can be tendrils of tumor well beyond the primary mass. If clean surgical margins can be obtained, the prognosis is good. If the tumor is so large that complete removal is impossible, radiation therapy should be considered. Chemotherapy is generally not useful in control of the primary tumor.

Lili Duda, VMD 11/1/01
No