Malignant Schwannoma:

A malignant schwannoma is a cancer that grows from the cells that surround the nerves, and is also called a nerve sheath tumor. Malignant schwannoma, neurofibrosarcoma, and hemangiopericytoma are three cancers that are very similar in appearance under the microscope, and behave in similar ways. Some pathologists have difficulty telling them apart without doing complicated and sometimes expensive procedures which check proteins on the surface of the cancer cells called "Immunohistochemistry." However, it makes little clinical difference to find out exactly which one it is, because they are all treated similarly, and the patient outcomes are similar.

The information below is about malignant schwannomas in general, and is made up of what we typically expect with this type of tumor. However, we always have to remember that patients are not statistics, and individuals are often but not always similar to average. Some individuals do much better than average, and some do much worse than average.

How is Does Malignant Schwannoma Behave?

Malignant schwannomas rarely have cells that leave the tumor site and set up other tumors in other places in the body (the medical term for this is "metastasize."). However, they invade tissues surrounding the tumor, and often return in the same location after being surgically removed.

How is Malignant Schwannoma Treated?

The best way to treat a malignant schwannoma is to surgically remove it, if it is in a location that makes that possible. These tumors as are often found on the limbs. If they can not be completely removed, or if they grow back after surgery and another surgery is not possible, then sometimes the only way to get rid of the tumor with surgery is by amputating the limb involved. Because these tumors rarely metastasize, complete surgical removal is usually curative. However, because the tumor is so locally invasive, these kinds of tumors usually return with time, even when the biopsy report says the tumor was completely removed. There is no way to know how long it will be before it grows back. It could take weeks, or it could take years.

These tumors respond very well to radiation treatment. About 75% of dogs who have a malignant schwannoma that is incompletely removed and have follow-up radiation therapy to their leg, have no tumor regrowth three years later. Radiation therapy is available at veterinary referral hospitals, and is usually performed by veterinary radiologists or oncologists. If you are interested in radiation therapy, there are clinics in Houston, Dallas and College Station that can provide that treatment. If you are interested in this, the sooner we consult with an Oncologist, the more likely they will be able to help. If you are considering referral, we should do chest x-rays to check for metastasis prior to referral. The chance of finding cancer in the lungs is very small, but it should be ruled out prior to radiation therapy, because radiation therapy is not likely to prolong life if your pet has one of the very rare malignant schwannomas that does metastasize.

Chemotherapy might be offered by an oncologist, but it is not particularly effective for this type of cancer.

If a nerve sheath tumor is found in the nerves that go to the front (brachial plexus) or rear leg (lumbosacral intumescence), they can be particularly difficult to remove, as they often invade the spinal cord. These tumors have a poor prognosis. The first symptom is usually a lameness in one leg that is difficult to diagnose. As time passes, the lameness progresses to paresis (partial loss of normal movement in the limb) and eventually paralysis of that leg. If the tumor grows large enough and invades the spinal cord, it can also cause paralysis in other legs or even breathing problems if present in a nerve in the brachial plexus (to the front limbs).

References:
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