



What kinds of brain tumors affect pets?

Brain tumors occur relatively often in dogs and cats. The most common type of brain tumor is a meningioma, which originates from the layer surrounding the brain, called the meninges. Meningiomas are slow-growing benign tumors that are often present for months to years before clinical signs appear. Other common types include glial cell tumors, which originate in the brain tissue, and choroid plexus tumors, which originate from the tissue in the brain that produces spinal fluid.

Tumors in structures around the brain (like nasal tumors, skull tumors, and pituitary tumors) may also compress the brain. Lymphoma is a type of cancer that can affect multiple parts of the brain and spine.

What are the symptoms?

Symptoms vary and depend on the size and location of the tumor. Common signs include changes in behavior, circling or pacing, staring into space, getting stuck in corners, and seizures. Other signs can include weakness, lack of alertness, difficulty eating or swallowing, and problems with the “vestibular system,” or system of balance, such as lack of coordination, head tilt, leaning/circling/falling to one side, and abnormal eye movements.

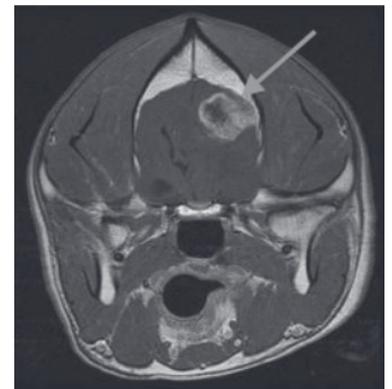
How are brain tumors diagnosed?

An MRI scan produces an image of the brain that’s more detailed than a CT scan or x-ray and can identify a tumor. Often the appearance of the tumor on MRI suggests the type of tumor (i.e. meningioma vs lymphoma). However, a biopsy of the tumor is required to give a definitive diagnosis. In some cases, spinal fluid is collected to help diagnose lymphoma.

What determines the best treatment?

There are three main types of treatment:

1. Surgery
2. Radiation
3. Medical management.



The arrow on this MRI image of a dog’s brain points to a tumor.

Depending on the type of tumor and its characteristics, a neurologist or oncologist will determine what your treatment options are and then meet with you to discuss all the considerations, including the success rate, costs, potential risks, and any concerns you have.

Many tumors can be removed surgically, depending on the tumor’s exact location. Surgery is often recommended for meningiomas and may be able to remove almost all of the tumor. Some slow-growing forms of choroid plexus tumors also respond well to surgery. Surgical success for other tumors varies according to their location, size, and aggressiveness.

If your pet’s tumor cannot be removed surgically, radiation therapy may be a good option. This approach usually involves treatment with multiple doses of radiation given over one to four weeks to shrink the tumor. Some tumors such as meningiomas and pituitary tumors are very sensitive to radiation, while others do not respond as well.

Medical management typically involves administering corticosteroids to reduce swelling associated with the tumor. Chemotherapy is not as effective in treating brain tumors as it is in other types of cancer in pets, although it can be very useful in treating lymphoma that involves the brain. (continued...)



SAGE

BRAIN TUMORS

What is my pet's long-term prognosis?

The long-term outcome depends on the type, size, rate of growth, and location of tumor and the treatment employed. Surgical removal has a very good success rate with certain tumors, such as meningiomas, depending on any complications during or immediately after surgery. The most common complication after surgery is pneumonia, which can be life threatening unless it's caught early and treatment is promptly initiated. All post-operative brain surgery patients are carefully monitored for any respiratory issues.