

How common are brain tumors?

Brain tumors are relatively common in dogs and cats. The most common type of brain tumor is called a meningioma, which originates from the layer surrounding the brain called the meninges. Meningiomas are slow-growing tumors that are often present for months to years before clinical signs appear. Other common types of tumors 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.

What are the clinical signs of brain tumors?

Clinical signs vary and depend on the size of the tumor and where it is located. Common signs associated with tumors in the front part of the brain include changes in behavior, circling or pacing, staring into space, getting stuck in corners, and seizures. Changes associated with tumors in the back part of the brain may include weakness, mental dullness, difficulty eating or swallowing, and problems with the “vestibular system,” or system of balance, including lack of coordination, head tilt, leaning/circling/falling to one side, and abnormal eye movements.

How are brain tumors diagnosed?

An MRI is performed to image the brain. MRI is preferred over a CT scan as it shows more detail in the brain. An MRI can never be used to definitively diagnose a tumor, however, certain tumors have classic imaging findings that may suggest a certain type of tumor. The only way to definitively diagnose a tumor is to obtain a sample of tumor tissue, either surgically or via a CT-guided biopsy.

What is the treatment for a brain tumor?

The three main types of treatment are surgery, radiation, and medical management. The type of treatment recommended depends on tumor type, tumor location, and tumor size. Many tumors are located in areas that can be accessed surgically. The surgical approach depends on the exact location of the tumor, and risks vary depending on location. Surgery is often recommended for meningiomas, which can often be almost completely removed. Some forms of choroid plexus tumors are slow growing and also respond well to surgery. Surgical success for other tumors is variable and depends largely on their location, size, and aggressiveness.

In cases where the tumor cannot be accessed surgically, radiation therapy may be an option. Radiation involves giving multiple doses over weeks to shrink the tumor. Some tumors, such

as meningiomas and pituitary tumors, are very sensitive to radiation while others do not respond at all.

Medical management typically involves using corticosteroids to reduce any swelling associated with the tumor. Chemotherapy is not particularly effective in treating brain tumors, although some tumors will respond to certain chemotherapeutic agents.

What is the long-term prognosis in animals with brain tumors?

Long-term prognosis depends on the tumor's type, size, rate of growth, location, and the treatment employed. The success rate can be very good with surgical removal of certain tumors, such as meningiomas. Surgical success depends largely on whether complications occur during surgery or during the immediate post-operative period. The most common complication after surgery is pneumonia, which can be life-threatening.