

Meningiomas

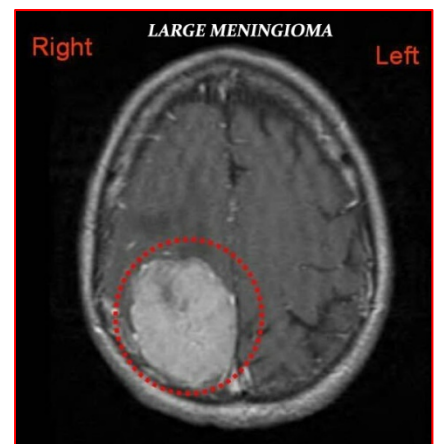
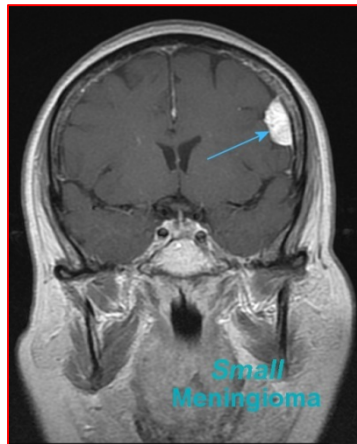
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The Central Illinois Neuroscience Foundation (CINF) is a non-profit organization dedicated to enhancing neurological healthcare through education and research

Perhaps the most frightening news a patient can receive from a physician is to hear they have a brain tumor. However, a diagnosis of a brain tumor does not mean a death sentence. Technological advances in surgery and treatment have allowed many patients diagnosed with a brain tumor to lead long, healthy lives.

Meningiomas are slow growing brain tumors that arise from cells that line the brain and spinal cord. Almost 90% of meningiomas are found in the head. The exact reason why meningiomas develop is unknown. Research shows that patients with a history of radiation therapy, especially for cancers of the brain or spine, have a higher occurrence of meningiomas. Meningiomas may also be seen in the areas of a previous head injury or skull fracture. Additionally, some studies suggest a link between hormonal changes and meningioma formation. However, the majority of meningiomas that are diagnosed have no identifiable cause in the patient's medical history.

Because the tumors are slow to develop, the symptoms are very subtle and gradually increase over time. The symptoms may resemble those same complaints we typically blame on the aging process: visual changes, hearing loss, declining memory or headaches. More alarming symptoms can include seizures, weakness in the arms or legs, or instability. If a physician is suspicious that a patient's complaints might be related to a brain tumor, a CT and/or MRI scan are generally ordered. These tests provide the physician with pictures of the skull, spine and brain which reveal any abnormalities in the bone or tissue and help determine the best treatment for the patient.



Fortunately, the vast majority of meningiomas are benign and patients can be considered "cured" after the tumor is removed. However, a small percentage of meningiomas are considered atypical or malignant and are more difficult to treat. For most patients, the first line of treatment is surgery to remove the tumor, but it depends on the size and location of the tumor as well as the patient's age and overall medical condition. Improvements in computerized image-guided surgical equipment allow surgeons to see and remove more of the tumor while also reducing the chance of damaging healthy brain tissue. For many patients, radiation therapy is recommended following surgery, especially if the entire tumor is not removed. Radiation therapy, whether external beam radiation or stereotactic radiosurgery, uses high-energy x-rays to destroy remaining tumor cells and prevent further growth.

The prognosis for patients following surgery directly relates to the extent of tumor removal. In cases where the entire tumor is not removed, or in cases of atypical or malignant meningiomas, tumors are likely to reappear. The 5-year survival for patients with meningiomas is greater than 90%! The risks and complications of brain surgery are similar to those of other surgeries and largely depend on where the tumor is located.

Again, the course and outcome of treatment for meningiomas largely depends on the size and location of the tumor, and the age and overall health of the patient. Successful treatment relies on clear communication between the patient, the family and the neurosurgeon.

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