Brain Tumors

Tumors (growths) may occur in the brain. These tumors may be benign (noncancerous) or malignant (cancerous). Even noncancerous tumors may cause compression of the brain tissue, so they may need to be aggressively treated or removed surgically. Malignant brain tumors may be primary (cancers of the brain tissue itself) or metastatic (spread from a cancer somewhere else in the body). The February 2, 2005, issue of JAMA includes an article about primary malignant brain tumors.

Types of Brain Tumors
Primary brain tumors are named according to the tissue from which they arise. They include glioblastoma (the most common type of primary brain tumor and the most aggressive form of astrocytoma) and meningioma. Some types of brain tumors are more common in children than in adults, and children are more likely to develop primary brain tumors than adults. Metastatic tumors in the brain are commonly associated with cancers of the lung, breast, and colon.

Symptoms
• Headache
• Nausea and vomiting
• Seizures (sudden attacks involving changes in consciousness, movements, or sensations caused by bursts of electrical activity in the brain)
• Dizziness
• Weakness in hands, arms, feet, or legs
• Blurred or disturbed vision
• Slurred speech or difficulty finding words
• Decreased memory or concentration

Diagnosis
Symptoms similar to those of brain tumors may occur in individuals with other neurological disorders, so in addition to taking a medical history and performing a physical examination, your doctor may order scans such as a computed tomography (CT) scan and magnetic resonance imaging (MRI) that show the internal structures of the brain. The tumor type is confirmed by examining a sample taken from the tumor site. This is delicate surgery performed by neurosurgeons (doctors with specialized training in surgery of the nervous system).

Treatment
Treating brain tumors may be difficult because of their location. Surgery is used in many cases. Chemotherapy (cancer drug treatments) and radiation (high-energy x-ray) therapy may be used to decrease the size of brain tumors. Dexamethasone, a steroid medication, can decrease brain swelling. Antiseizure medication may be given to treat or prevent seizures associated with brain tumors.

For More Information
• American Brain Tumor Association
  800/886-2282
  hope.abta.org/site/PageServer
• National Brain Tumor Foundation
  800/934-2873
  www.brain tumor.org
• National Institute of Neurological Disorders and Stroke
  www.ninds.nih.gov

Inform Yourself
To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA’s Web site at www.jama.com. A Patient Page on cancer clinical trials was published in the June 9, 2004, issue; and one on cancer and children was published in the April 10, 2002, issue.

Sources: American Cancer Society, National Cancer Institute, National Institute of Neurological Disorders and Stroke

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