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MENINGIOMAS

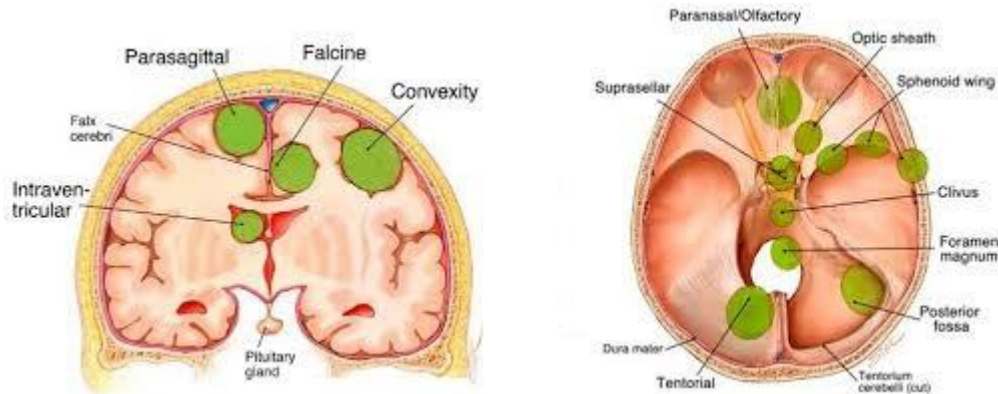
A Guide for Patients and their families



Meningiomas

What Are Meningiomas?

Meningiomas are “brain tumours” although they do not grow from brain tissue. They arise from the meninges – the thin tissue covering the brain and spinal cord. They usually grow inward causing pressure on the brain or spinal cord, although occasionally they also grow outward and cause the skull to thicken.



IMAGES SHOWING MENINGIOMAS AT DIFFERENT LOCATIONS(BRAIN)

They are usually benign i. e, non- cancerous, and slowly growing, and often grow to a large size before showing symptoms.

Incidence

They are the most common benign intracranial tumour, and occur most often in people between 40-60 years of age. Benign meningiomas occur in both men and women.

Causes

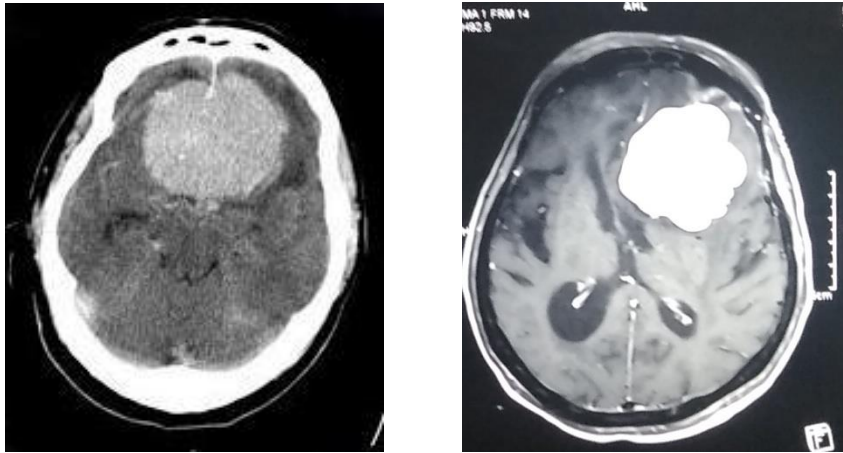
Like other brain tumors, the cause of meningiomas is unknown. In some cases, an abnormal chromosome #22 has been found, but what causes this chromosome abnormality is uncertain.

Symptoms

The first symptoms are usually due to increased intracranial pressure caused by the growing tumor. Seizures and headaches are common symptoms. Other symptoms depend on the size and location of the tumor.

Diagnosis

The diagnosis may be suspected from symptoms and the neurological examination, but CT and/or MRI scans are required to determine the location, size and probable type of tumor.



CT BRAIN AND MRI SHOWING A LARGE MENINGIOMA

Treatment

Surgery

Surgery is the primary treatment for meningiomas in the brain or spinal cord. Surgery often involves removal of the tumor, part of the meninges and abnormal bone. Some tumors can only be partially removed because of their location or adherence to vital brain structures. Partial removal will relieve symptoms, and because tumors growth is slow, it could be many years before further treatment, if any, is necessary.

Several surgical “tools” are available to help the neurosurgeon during surgery. High-powered operation microscopes allow the surgeon to see the tumor and vital structures clearly. Ultrasonic aspirators may be used to break up and suck out the tumor. In some cases where the tumor has a rich blood supply, cerebral angiography (X-ray of the blood vessels of the brain) is used for preoperative planning to safeguard large vessels.

Surgical removal of benign meningiomas usually provides a cure. The length of recovery after surgery varies according with the age and general health of the patient, the location and size of the meningioma. Steroids are often given to reduce brain swelling around the tumor before and after the operation. Anticonvulsants may be used to control seizures before surgery or prevent their occurrence after surgery. Weakness, co-ordination or speech problems may occur after surgery, physical, occupation and speech therapy may help reduce these impairments which are often temporary in duration.

In the elderly, small meningiomas may be monitored frequently and brain scans done during the period of observation to see whether the tumor is enlarging in size. Surgery can be avoided if the tumour does not increase in size. New symptoms or signs must be reported to the attending doctor so that he can reassess the situation.

Radiation treatment

Radiation treatment may be used for meningiomas that cannot be operated on for medical reasons, when total removal was not possible or for small recurrences.

Recurrence

Recurrence can however occur when the entire tumor its meningeal origin cannot be removed by surgery killed by other treatment, or when it is of a malignant nature. The recurrence rate is also higher when the tumor has a typical features. It is therefore important at the patient comes for regular follow-up and CT or MRI Scans that may be ordered by the neurosurgeon from time to time. Treatment for recurrent meningioma may be a second surgery or radiosurgery. For recurrent malignant meningioma, second surgery, radiation therapy or chemotherapy may be used.