Glioblastoma Multiforme

Glioblastoma multiforme belongs among the primary brain tumors. Generally, the brain tumors tend to be benign, but unfortunately, this is not the case. Glioblastoma behaves as a malignant tumor and its prognosis is not good.

Causes

The exact cause of this cancer is not known. It occurs more frequently in people over 50 years of age, more likely in men. It is assumed an influence of genetic condition combined with some outer factors. There is a clearly increased risk of glioblastoma development in patients with neurofibromatosis, Turcot syndrome and Von Hippel-Lindau disease. The tumor arises from cells that are referred to astrocytes. These cells support the nerve cells and they are also involved in protection of brain barrier against harmful substances from bloodstream.

Symptoms

The symptoms depend on the location and extent of the tumor mass. The tumor grows aggressively and it damages the surrounding brain tissue. The irritation of neurons may trigger epileptic seizures, sensitivity disorders and muscle paralysis of various body parts. Larger tumors can cause brain swelling and the development of intracranial hypertension, which is manifested by nausea, vomiting and headache. Glioblastoma multiforme may form metastases that are usually located within the brain (including meninges, brain ventricles, etc.) and not elsewhere in the body.

Diagnosis

Patient with any of the above mentioned symptoms is usually examined by a neurologist and the examination is followed by computed tomography or magnetic resonance imaging of the brain. In some cases, a sample of the tumor tissue may be obtained by neurosurgeons by a needle biopsy or after surgical opening of the skull.

Treatment

The only possible curative method is neurosurgical intervention with complete removal of the tumor mass. The tumor does not well respond to radiation or chemotherapy and the prognosis is usually very serious. As a supportive and merely symptomatic therapy, corticosteroids (against brain swelling) and antiepileptic drugs can be used.