Brain tumor classification

Brain tumors show considerable phenotypic and genetic heterogeneity.

Primary brain tumor

Primary brain tumor and metastatic brain tumors comprise a heterogeneous group of CNS malignancies, varying in histological features [1] phenotypic presentation [2] ,cell origin, and tumor grade as designated by the World Health Organization Classification of Tumors of the Central Nervous System.

Within the brain itself, the involved cells may be neurons or glial cells (which include astrocytes, oligodendrocytes, and ependymal cells). Brain tumors may also spread from cancers primarily located in other organs (metastatic tumors).

World Health Organization Classification of Tumors of the Central Nervous System

World Health Organization Classification of Tumors of the Central Nervous System

Molecular genetics

Molecular genetics in brain tumors.

1)
Burger PC, Green SB: Patient age, histologic features, and length of survival in patients with glioblastoma multiforme. Cancer 59:1617–1625, 1987
2)
Bigner DD, Bigner SH, Pontén J, Westermark B, Mahaley MS, Ruoslahti E, et al.: Heterogeneity of genotypic and phenotypic characteristics of fifteen permanent cell lines derived from human gliomas. J Neuropathol Exp Neurol 40:201–229, 1981